CHARLES TOWN UTILITY BOARD
AGENDA

WEDNESDAY, JUNE 28, 2023

Regular Meeting | **661 South George Street, Charles Town, WV 25414** | **4:00 PM**

CALL TO ORDER

1. **APPROVAL OF MINUTES**
   a. Approval of May 24, 2023 Regular Meeting Minutes
   UB Minutes 05.24.2023.pdf

2. **PUBLIC COMMENT**
   This portion of the agenda is designed for members of the general public to share thoughts on items of interest in the community. By law, Board members may ask clarifying questions or discuss procedural matters but are not permitted to discuss the policy merits of any issue unless it is scheduled or discussion.

   The public is invited to attend this meeting in person or via webcast (www.ctubwv.com- Board Meetings - Meeting Agendas and Minutes 2023) or by accessing the following zoom link:

   https://us06web.zoom.us/j/85135076725?pwd=bTEzazJKY0ZrcTJTV1FMbjk5MU5iUT09

   Meeting ID: 851 3507 6725
   Passcode: 598243
   +1 301 715 8592 US

3. **UNFINISHED BUSINESS**
   a. PSC Case Updates - Possible Executive Session Under: WV State Code Section §6-9A-4(b)(9) - To consider matters involving or affecting the purchase, sale or lease of property, advance construction planning, the investment of public funds or other matters involving commercial competition, which if made public, might adversely affect the financial or other interest of the state or any political subdivision and involving contract matters.
   b. Locust Hill Golf Course Agreement
   Locust Hill Draft Agreement.pdf

4. **NEW BUSINESS**
   a. GDF
   i. Renewal and Replacement Project Resolution No. 8 - Contractor Pay

Application No. 8
GDF Pay Application No 8.pdf

ii. Potomac Farms Evaluation
Potomac Farms Water System Draft Evaluation June 2023.pdf

b. Wendy's Pump Station Upgrades
Wendy's Pump Station Bids.pdf

c. Collection System Project - Easement Acquisition Proposal
ERM Proposal 06.08.2023.pdf

d. Stonecrest and Aspen Green Agreement
AMLEA Stonecrest-Final.pdf
Stonecrest Exhibit.pdf

5. **MANAGER REPORTS**
   a. Utility Manager Report
   UM Report 06.28.2023.pdf
   Hydrant Flushing Exhibit.pdf
   Revenue & Expense May 2023.pdf
   b. Chairman Report

6. **APPROVAL OF BILLS**
   a. June 28, 2023
   Board Report 06.14.2023.pdf
   Board Report 06.28.2023.pdf

7. **ADJOURNMENT**

8. **INFORMATION ONLY**
   a. Consumer Confidence Reports for Charles Town, Glen Haven and Cavaland Water Systems
   2022 Consumer Confidence Report CT.pdf
   2022 Consumer Confidence Report Cavaland.pdf
   2022 Consumer Confidence Report Glen Haven.pdf
   b. Next Meeting - July 12, 2023 at 4:00 P.M.

Charles Town Utility Board
Regular Board Meeting
May 24, 2023

The Charles Town Utility Board held a regular meeting on May 24, 2023 at 4:00 P.M. Members of the Board present were Robert Trainor, Chairman; Duke Pierson, Vice Chairman; Tommy Stocks, Treasurer; Jeff Whitten, Board Member and Heidi Parker, Board Member. Also present were Kristen Stolipher, Utility Manager; Ashley Stottlemyer, Secretary; Robert Rodecker, Legal Counsel; and Clare Ath, County Commission Liaison.

CALL TO ORDER

The Chairman called the meeting to order at 4:00 P.M.

APPROVAL OF MINUTES

Approval of May 10, 2023 Regular Meeting Minutes

The Chairman called for changes or corrections to the May 10, 2023 regular meeting minutes.

Action: With no objections from the Board, the minutes were approved as presented.

PUBLIC COMMENT

The Board received a public comment from Jacqueline Milliron, Elizabeth Ricketts, and Nicola Bastian.

OLD BUSINESS

Exempt Meter Policy Revision

Mrs. Stolipher provided the revised policy per the Board's changes from the May 10th meeting. She mentioned this policy is for residential use as commercial is a separate provision. The Board provided discussions.

Action: Motion by Mr. Pierson, second by Mr. Whitten, the Board unanimously approved the Residential Exempt Meter policy as presented with the revision date of May 24, 2023.

NEW BUSINESS

Proposed NPDES Permit Order - Possible Executive Session Under: WV State Code Section §6-9A-4(b)(12) – To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential.

Action: This item was moved to the end of the meeting.

Consumer Confidence Reporting 2022

Mrs. Stolipher provided that Consumer Confidence Reports have been mailed to water customers in the past based on the prior year's water quality reporting, but after researching the costs and reporting requirements there is an option to include a note in the June bills on how to obtain a digital copy of the report instead of paper. Mrs. Stolipher mentioned other utilities offer this option and it gives the opportunity to offer more information in the report rather than a trifold brochure. The Board provided discussions and had no objections to this new digital option.

Action: No action required by the Board.

MANAGER REPORTS

Utility Manager Report

- Collection System Project City of Charles Town ARPA Request

Mrs. Stolipher mentioned a request for City of Charles Town ARPA funding to create a walking trail within a portion of the Collection System Project. The request is for $150,000.00 for a trail along Washington Street to Augustine Avenue.

- Lead and Copper Updates

Mrs. Stolipher reported that she briefed City Council on the lead and copper updates for the inventory completion by the October 2024 deadline and included several informational documents in the packet which will be uploaded to the website.

Action: **No action required by the Board.**

Chairman Report

The Chairman had no updates to report.

Action: **No action required by the Board.**

APPROVAL OF BILLS

May 24, 2023

Action: **Motion by Mr. Pierson, second by Mr. Stocks, the Board unanimously approved the payment of the bills.**

EXECUTIVE SESSION

Proposed NPDES Permit Order - Possible Executive Session Under: WV State Code Section §6-9A-4(b)(12) – To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential.

Action: **Motion by Mr. Pierson, second by Mr. Whitten, the Board unanimously approved convening into Executive Session at 4:45 P.M. to discuss the proposed NPDES Permit Order.**

Executive session was over at 5:06 P.M.

INFORMATION ONLY

The next regular meeting is scheduled for Wednesday, June 28, 2023 at 4:00 P.M. at 661 S. George Street.

There being no further business at this time, the Board adjourned the meeting at 5:06 P.M.

_____	_____
Robert M. Trainor	Ashley Stottlemyer
Chairman	Secretary

AGREEMENT

THIS AGREEMENT (the "Agreement") is made and effective this __ day of _____ , 2023, by and between the CITY OF CHARLES TOWN, by and through the CHARLES TOWN UTILITY BOARD, (hereafter, CTUB") and LOVE 4 GOLF, LLC doing business as LOCUST HILL GOLF COURSE (hereafter " Locust Hill GC" and together with CTUB, the "Parties").

WHEREAS, CTUB and Locust Hill GC (as successor in interest to HHC Locust Hill, LLC and owner of Locust Hill GC) are parties to an agreement dated August 6, 2013 (the "August 6, 2013 Agreement") pertaining in part to the ownership, operation of, and responsibilities of aeration equipment related to Ponds #1 and #2 on the Locust Hill GC golf course (the "Golf Course"); and

WHEREAS, since the entry into the August 6, 2013 Agreement, the Parties have determined that improvements in the aeration equipment for Ponds #1 and #2 are necessary; and

WHEREAS, the Parties have obtained a quotation from WaterIQ Technologies dated May 25, 2023 in the amount of $11,681.15 for the purchase and shipping of a pulsar system and related equipment to address algae blooms in Ponds #1 and #2.

NOW, THEREFORE, the Parties agree as follows:

1. Locust Hill GC will be responsible for 2/3rd of the total cost which results in payment of the amount of $7,687.05.

2. CTUB will be responsible for 1/3rd of the total cost which results in payment of the amount of $3,894.10.

3. Locust Hill GC will hook up one of the units to its electric meter and be responsible for monthly payment of electricity for that unit.

4. CTUB will hook up one of the units to its electric meter and be responsible for monthly payment of electricity for that unit.

5. Locust Hill GC will be responsible for all maintenance and service for both units.

6. The Parties have been informed by WaterIQ Technologies that, If the Parties are not satisfied that the units are working as intended, the units can be returned for a full refund.

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7. All provisions of this Agreement are intended to be supplemental to and not in conflict with the August 6, 2013 Agreement. To the extent any provision herein are in conflict with the August 6, 2013 Agreement, the provisions of this Agreement shall prevail.

Dated: June _____, 2023.

CHARLES TOWN UTIITY BOARD

By:_____

Its:_____

LOVE 4 GOLF, LLC doing business as LOCUST HILL GOLF COURSE

By:_____

Its:_____

DRAFT

CHARLES TOWN UTILITY BOARD
2022 RENEWAL AND REPLACEMENT PROJECT

RESOLUTION NO. 8

RESOLUTION OF THE CITY OF CHARLES TOWN UTILITY BOARD APPROVING INVOICES RELATING TO THE CONSTRUCTION AND OTHER SERVICES FOR THE 2022 CHARLES TOWN WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT AND AUTHORIZING PAYMENT THEREOF,

WHEREAS, the City of Charles Town Utility Board (CTUB) has reviewed the invoices attached hereto and incorporated herein by reference relation to the project:

a) That none of the items for which payment is proposed to be made has formed the basis for any disbursement theretofore made.

b) That each item for which the payment is proposed to be paid is or was necessary in connection with the Project and constitutes a cost of the project.

c) That each of such costs has been otherwise properly incurred.

d) That the payment for each of the items proposed is due and owing.

NOW, THEREFORE, BE IT RESOLVED the City of Charles Town Utility Board that the payment of the attached Contractor's Application for Payment No. 8 as summarized below, is hereby authorized and directed.

Vendor	**Renewal and Replacement Project at the Charles Town Wastewater Treatment Facility**
Alvarez Contractors, Inc.	$872,756.88
Total	**$872,756.88**

ADOPTED BY the City of Charles Town Utility Board, at the meeting held on the 28th day of June 2023.

By: _____
Robert Trainor, Interim Chairman

Date: June 28, 2023

Charles Town Utility Board
2022 Renewal and Replacement Project
Schedule B

A. COST OF PROJECT	APPROVED CONSTRUCTION BUDGET	Paid by CTUB from Operating Account	Paid by CTUB from Operating Account 6/1/2022-11/7/2022	Paid by CTUB from Operating Account 11/8/2022-12/8/2022	Paid by CTUB from Operating Account 12/9/2022-1/18/2023	Paid by CTUB from Operating Account 1/19/2023-3/8/2023	Paid by CTUB from Operating Account 3/9/2023-4/12/2023	Paid by CTUB from Operating Account 4/13/2023-5/10/2023	Paid by CTUB from Operating Account 5/11/2023-6/28/2023	Resolution No. 1 Contractor's Application for Payment No. 1	Resolution No. 2 Contractor's Application for Payment No. 2	Resolution No. 3 Contractor's Application for Payment No. 3	Resolution No. 4 Contractor's Application for Payment No. 4	Resolution No. 5 Contractor's Application for Payment No. 5	Resolution No. 6 Contractor's Application for Payment No. 6	Resolution No. 7 Contractor's Application for Payment No. 7	Resolution No. 8 Contractor's Application for Payment No. 8	BALANCE REMAINING
1 **CONSTRUCTION**																		
a. Contract	$ 10,151,000.00									$ 258,858.00	$ 188,174.70	$ 134,861.40	$ 91,314.99	$ 92,171.91	$ 498,898.59	$ 769,319.84	$ 673,483.46	$ 7,443,917.11
b. Construction Contingency 5% - (See note #2 below)	$ 466,370.43																	$ 466,370.43
c. Change Order #1 (See note #3 & #4 below)	$ 498,183.42															$ 298,910.00	$ 199,273.42	$ -
d. Change Order #2	$ 41,179.57																	$ 41,179.57
2 **ENGINEERING SERVICES**																		
GDF Engineering fees (including CA and RPR)	$ 760,000.00	$ 410,782.47	$ 32,115.37	$ 8,829.82	$ 50,270.24	$ 8,627.43	$ 5,867.80	$ 51,001.73	$ 22,948.87									$ 169,556.27
Additional RPR inspection (not yet Board approved)	$ 125,000.00																	$ 125,000.00
Initial GDF R&R Report	$ 40,082.50	$ 40,082.50																$ -
3 **LEGAL SERVICES**																		
a. Local Project Attorney	$ 20,000.00	$ 544.00	$ 2,312.00															$ 17,144.00
4 **ADMINISTRATIVE SERVICES**																		
a. Project Accountant (CPA)	$ 20,000.00	$ 2,937.50	$ 7,400.00															$ 9,662.50
b. Other Administrative Costs	$ 10,000.00	$ 1,190.00	$ 4,196.01															$ 4,613.99
5 **Total Project Costs Lines 1-6**	**$ 12,131,815.92**	**$ 455,536.47**	**$ 46,023.38**	**$ 8,829.82**	**$ 50,270.24**	**$ 8,627.43**	**$ 5,867.80**	**$ 51,001.73**	**$ 22,948.87**	**$ 258,858.00**	**$ 188,174.70**	**$ 134,861.40**	**$ 91,314.99**	**$ 92,171.91**	**$ 498,898.59**	**$ 1,068,229.84**	**$ 872,756.88**	**$ 8,277,443.87**
B. SOURCES OF FUNDS	**APPROVED PROJECT FUNDING**																	
1 PROJECT FUNDS																		
a. Capacity Improvement Fees	$ 1,170,163.00																	$ 1,170,163.00
b. R&R, Operating Cash, Working Capital (See note #1 below)	$ 2,015,122.92	$ (455,536.47)	$ (46,023.38)	$ (8,829.82)	$ (50,270.24)	$ (8,627.43)	$ (5,867.80)	$ (51,001.73)	$ (22,948.87)							$ (298,910.00)	$ (199,273.42)	$ 867,833.76
c. EEG Grant Funds	$ 1,966,030.00																	$ 1,966,030.00
Total Internal Funds & EEG Grant Funds	**$ 5,151,315.92**																	**$ 4,004,026.76**
d. Bond Proceeds 2022B & 2022C	**$ 6,980,500.00**									$ (258,858.00)	$ (188,174.70)	$ (134,861.40)	$ (91,314.99)	$ (92,171.91)	$ (498,898.59)	$ (769,319.84)	$ (673,483.46)	**$ 4,273,417.11**
Total Funds Available	**$ 12,131,815.92**	**$ (455,536.47)**	**$ (46,023.38)**	**$ (8,829.82)**	**$ (50,270.24)**	**$ (8,627.43)**	**$ (5,867.80)**	**$ (51,001.73)**	**$ (22,948.87)**	**$ (258,858.00)**	**$ (188,174.70)**	**$ (134,861.40)**	**$ (91,314.99)**	**$ (92,171.91)**	**$ (498,898.59)**	**$ (1,068,229.84)**	**$ (872,756.88)**	**$ 8,277,443.87**

Note #1 - March 1, 2023 this line item was increased to include the full amount of Change Order #1. Internal funds that were previously allocated for the Collection System project will be dedicated to this Change Order. This will require an increase of the requested funds from CWSRF for the Collection System Project.
Note #2 - March 8, 2023 this line item was decreased by $41,179.57 to include the full amount of Change Order #2.
Note #3 - Pay App #7 in the amount of $1,068,229.84 includes $298,910 from Change Order #1. $769,319.84 will be paid from the 2022B and $298,910 will be paid from the Renewal & Replacement Account.
Note #4 - Pay App #8 in the amount of $872,756.88 includes the remaining balance of $199,273.42 from Change Order #1. $673,483.46 will be paid from the 2022B and $199,273.42 will be paid from the Renewal & Replacement Account.

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

Contractor's Application for Payment No. 8

	Application Period: 5/01/23-5/31/23	Application Date:	5/31/2023
To (Owner): CHARLES TOWN UTILITY BOARD	From (Contractor): ALVAREZ CONTRACTORS, INC.	Via (Engineer):	GWIN, DOBSON & FOREMAN INC.
Project: CHARLES TOWN WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT	Contract: CONTRACT #1		
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.:	

Application For Payment

Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
CO 1	$498,183.42	
CO 2	$41,179.57	
TOTALS	$539,362.99	
NET CHANGE BY CHANGE ORDERS	**$539,362.99**	

1. ORIGINAL CONTRACT PRICE	$	$10,151,000.00
2. Net change by Change Orders	$	$539,362.99
3. Current Contract Price (Line 1 ± 2)	$	$10,690,362.99
4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates)	$	$3,561,407.01
5. RETAINAGE:		
a. 10% X $2,333,159.42 Work Completed	$	$233,315.94
b. 10% X $1,228,247.59 Stored Material	$	$122,824.76
c. Total Retainage (Line 5.a + Line 5.b)	$	$356,140.70
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)	$	$3,205,266.31
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)	$	$2,332,509.43
8. AMOUNT DUE THIS APPLICATION	$	$872,756.88
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above)	$	$7,485,096.68

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By: _____ Date: 5/31/2023

Payment of: $ $872,756.88
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ 5/26/2023
(Engineer) (Date)

Payment of: $ $872,756.88
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ _____
(Owner) (Date)

Approved by: _____ _____
Funding or Financing Entity (if applicable) (Date)

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Progress Estimate - Lump Sum Work

Contractor's Application

For (Contract):	CHARLES TOWN WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT	Application Number:	8
Application Period:	5/01/23-5/31/23	Application Date:	5/31/2023

			Work Completed		E	F		G
A		B	C	D				
Schedule of Values Item No.	Description	Scheduled Value ($)	From Previous Application (C+D)	This Period	Materials Presently Stored (not in C or D)	Total Completed and Stored to Date (C + D + E)	% (F / B)	Balance to Finish (B - F)
1	D1 - Moblization/Demob.	$20,000.00	$20,000.00	$0.00	$0.00	$20,000.00	100.0%	$0.00
2	D1 - Bonds/Insurance	$178,000.00	$178,000.00	$0.00	$0.00	$178,000.00	100.0%	$0.00
3	D1 - Video Taping	$4,500.00	$4,500.00	$0.00	$0.00	$4,500.00	100.0%	$0.00
4	D1 - Field Office	$18,000.00	$8,640.00	$540.00	$0.00	$9,180.00	51.0%	$8,820.00
5	D1 - QC Testing (Cash Allowance)	$50,000.00	$13,500.00	$0.00	$0.00	$13,500.00	27.0%	$36,500.00
6	D1 - Submittals/Shop Drawings by ACI	$40,000.00	$34,000.00	$0.00	$0.00	$34,000.00	85.0%	$6,000.00
	DIVISION 2 - SITE WORK							
7	D2 - Sediment & Erosion Control	$20,200.00	$16,160.00	$404.00	$0.00	$16,564.00	82.0%	$3,636.00
	SITE DEMOLITION							
8	D2 - Concrete Pads	$4,100.00	$205.00	$0.00	$0.00	$205.00	5.0%	$3,895.00
9	D2 - Remove all Ex. Underground Lines at Centrifuge Bldg. Site	$32,900.00	$29,610.00	$0.00	$0.00	$29,610.00	90.0%	$3,290.00
10	D2 - Remove all Ex. Underground Lines at Electrical Bldg. Site	$12,400.00	$12,400.00	$0.00	$0.00	$12,400.00	100.0%	$0.00
11	D2 - Remove Portions of Underground Lines at Ex. Press Bldg.	$4,200.00				$0.00		$4,200.00
	STRUCTURES & BUILDING DEMOLITION							
12	D2 - Headworks Building	$40,200.00				$0.00		$40,200.00
13	D2 - Influent Pump Station & Bypass Pump Set Up	$97,500.00	$39,000.00	$53,625.00	$0.00	$92,625.00	95.0%	$4,875.00
14	D2 - UV Equipment	$18,300.00				$0.00		$18,300.00
15	D2 - Plant Drain Pump Station	$14,800.00				$0.00		$14,800.00
16	D2 - Electrical Building by ACI	$7,900.00				$0.00		$7,900.00
17	D2 - Sludge Day Tank & Pump Building	$97,800.00	$97,800.00	$0.00	$0.00	$97,800.00	100.0%	$0.00
18	D2 - Digester Blower Building	$32,500.00	$29,250.00	$1,625.00	$0.00	$30,875.00	95.0%	$1,625.00
19	D2 - Sludge Transfer Pump Building	$3,200.00				$0.00		$3,200.00
20	D2 - Digester Tank	$8,200.00	$7,790.00	$0.00	$0.00	$7,790.00	95.0%	$410.00
21	D2 - SBR	$1,600.00				$0.00		$1,600.00
	EXCAVATION (MAJOR STRUCTURES)							
22	D2 - Centrifuge Building	$38,900.00	$38,900.00	$0.00	$0.00	$38,900.00	100.0%	$0.00
23	D2 - Electrical Building by ACI	$7,800.00	$7,800.00	$0.00	$0.00	$7,800.00	100.0%	$0.00
24	D2 - Blower Pad	$5,100.00				$0.00		$5,100.00
25	D2 - Generator Pad	$5,200.00	$0.00	$1,300.00	$0.00	$1,300.00	25.0%	$3,900.00
	BACKFILL (MAJOR STRUCTURES)							
26	D2 - Centrifuge Building	$42,300.00	$0.00	$29,610.00	$0.00	$29,610.00	70.0%	$12,690.00
	STRUCTURAL STONE							
27	D2 - Centrifuge Building	$13,400.00				$0.00		$13,400.00
28	D2 - Electrical Building	$5,600.00	$1,960.00	$3,640.00	$0.00	$5,600.00	100.0%	$0.00
29	D2 - FRP Building	$2,000.00				$0.00		$2,000.00
30	D2 - Generator Pad	$1,500.00				$0.00		$1,500.00
31	D2 - Blower Pad	$1,500.00				$0.00		$1,500.00
	YARD PIPING							

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Progress Estimate - Lump Sum Work

Contractor's Application

For (Contract):	CHARLES TOWN WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT	Application Number:	8
Application Period:	5/01/23-5/31/23	Application Date:	5/31/2023

			Work Completed		E	F		G
A		B	C	D				
Schedule of Values Item No.	Description	Scheduled Value ($)	From Previous Application (C+D)	This Period	Materials Presently Stored (not in C or D)	Total Completed and Stored to Date (C + D + E)	% (F / B)	Balance to Finish (B - F)
32	D2 - 2" Sch 80 PVC Water Service to Headworks Bldg.	$9,900.00	$4,455.00	$4,950.00	$0.00	$9,405.00	95.0%	$495.00
33	D2 - 2" Sch 80 PVC Water Service to Centrifuge Bldg.	$25,100.00	$1,255.00	$0.00	$5,871.20	$7,126.20	28.4%	$17,973.80
34	D2 - 4" DIP WAS Line from Centrifuge Bldg. to Sanitary Sewer	$16,600.00	$14,940.00	$1,660.00	$0.00	$16,600.00	100.0%	$0.00
35	D2 - 4" DIP WAS Inlet to Centrifuge Bldg.	$17,400.00				$0.00		$17,400.00
36	D2 - 4" DIP Sludge Drain Off Line from Digester	$16,800.00	$0.00	$5,880.00	$0.00	$5,880.00	35.0%	$10,920.00
37	D2 - 4" DIP WAS Line from Centrifuge Bldg. to Digester	$16,700.00	$0.00	$0.00	$2,000.00	$2,000.00	12.0%	$14,700.00
38	D2 - 6" PVC Drain from Centrifuge Bldg. to Manhole	$16,500.00	$12,375.00	$0.00	$0.00	$12,375.00	75.0%	$4,125.00
39	D2 - 4" PVC Drain from Centrifuge Bldg. to Manhole	$15,200.00	$11,400.00	$0.00	$0.00	$11,400.00	75.0%	$3,800.00
40	D2 - 6" DIP Existing System Connection to New T-Valve	$16,700.00				$0.00		$16,700.00
41	D2 - 8" PVC Drain Line Under Centrifuge Bldg.	$13,500.00				$0.00		$13,500.00
42	D2 - 24" & 12" HDPE Storm Drain at Centrifuge Bldg.	$58,000.00	$29,000.00	$0.00	$5,737.52	$34,737.52	59.9%	$23,262.48
43	D2 - 18" HDPE Storm Drain at Electrical Bldg.	$39,000.00	$33,150.00	$0.00	$0.00	$33,150.00	85.0%	$5,850.00
44	D2 - 10" Stainless Steel Air Line to Digester	$10,900.00				$0.00		$10,900.00
	YARD STRUCTURES							
45	D2 - 4' Dia. Precast Drain Line Manhole	$3,400.00				$0.00		$3,400.00
46	D2 - Type G Precast Drop Inlet	$9,200.00				$0.00		$9,200.00
	FINAL RECLAMATION							
47	D2 - Asphalt Paving	$98,800.00				$0.00		$98,800.00
48	D2 - Final Grading, Seed & Mulch	$5,700.00				$0.00		$5,700.00
	DIVISION 3 - CONCRETE							
	SITE CONCRETE							
49	D3 - Generator Pad	$10,100.00				$0.00		$10,100.00
50	D3 - FRP Shelter Pad	$9,400.00				$0.00		$9,400.00
51	D3 - Digester Blower Pad	$28,200.00				$0.00		$28,200.00
52	D3 - Digester Equipment Pads	$24,900.00				$0.00		$24,900.00
53	D3 - Sidewalks at Blower Bldg. Area	$10,700.00				$0.00		$10,700.00
54	D3 - Sidewalks at Covered Sludge Storage Area	$11,400.00				$0.00		$11,400.00
	ELECTRICAL BLDG.							
55	D3 - Grade Beams	$38,300.00	$0.00	$38,300.00	$0.00	$38,300.00	100.0%	$0.00
56	D3 - Concrete Pads/SOG	$18,100.00	$0.00	$18,100.00	$0.00	$18,100.00	100.0%	$0.00
57	D3 - Door Stoops/Pads	$12,000.00				$0.00		$12,000.00
58	D3 - Exterior SOG/Sidewalks	$15,400.00				$0.00		$15,400.00
59	D3 - Misc. Equipment Pads	$3,000.00				$0.00		$3,000.00
	COVERED SLUDGE STORAGE AREA & CENTRIFUGE BLDG.							
60	D3 - Footings, Grade Beams & Walls	$162,000.00	$0.00	$48,600.00	$0.00	$48,600.00	30.0%	$113,400.00
61	D3 - Thickened SOG at Trench Drains	$22,200.00				$0.00		$22,200.00
62	D3 - 6" SOG at 2 - Areas	$49,700.00				$0.00		$49,700.00
63	D3 - Equipment Pads, Containment Curbs & Walls	$15,400.00				$0.00		$15,400.00

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Progress Estimate - Lump Sum Work

Contractor's Application

For (Contract):	CHARLES TOWN WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT	Application Number:	8
Application Period:	5/01/23-5/31/23	Application Date:	5/31/2023

			Work Completed		E	F		G
A		B	C	D				
Schedule of Values Item No.	Description	Scheduled Value ($)	From Previous Application (C+D)	This Period	Materials Presently Stored (not in C or D)	Total Completed and Stored to Date (C + D + E)	% (F / B)	Balance to Finish (B - F)
64	D3 - Door/Stoop	$8,100.00				$0.00		$8,100.00
	DIGESTER BLDG. & TANK							
65	D3 - Equipment Pads	$4,400.00				$0.00		$4,400.00
	DIVISION 4 - MASONRY							
	CENTRIFUGE BUILDING							
66	D4 - 12" Standard CMU's	$53,000.00				$0.00		$53,000.00
	DIVISION 5 - MISC. METALS							
	SITE							
67	D5 - Permanent Bollards	$7,200.00				$0.00		$7,200.00
68	D5 - Removable Bollards	$12,300.00				$0.00		$12,300.00
	ELECTRICAL BLDG.							
69	D5 - Partition Walls	$69,200.00				$0.00		$69,200.00
70	D5 - Roof/Ceiling Framing	$35,000.00				$0.00		$35,000.00
	CENTRIFUGE BUILDING							
71	D5 - W8 x 28 Steel Lintel	$1,800.00	$0.00	$0.00	$1,000.00	$1,000.00	55.6%	$800.00
72	D5 - Monorail Framing	$11,100.00	$0.00	$0.00	$7,690.00	$7,690.00	69.3%	$3,410.00
73	D5 - Covered Storage Framing	$12,900.00	$0.00	$0.00	$8,850.00	$8,850.00	68.6%	$4,050.00
74	D5 - Steel Erection	$25,500.00	$0.00	$0.00	$17,910.00	$17,910.00	70.2%	$7,590.00
75	D5 - Stainless Steel Polymer Fill Station	$4,600.00	$0.00	$0.00	$3,000.00	$3,000.00	65.2%	$1,600.00
	DIVISION 6 - WOOD AND PLASTICS							
	CENTRIFUGE BUILDING							
76	D6 - Wood Trusses & Sheathing	$69,500.00				$0.00		$69,500.00
77	D6 - Wood Framing & Interior Finishes	$53,700.00				$0.00		$53,700.00
78	D6 - FRP Grating & Ladders	$11,700.00				$0.00		$11,700.00
	ELECTRICAL SHELTER							
79	D6 - FRP Shelter Building	$48,600.00				$0.00		$48,600.00
	DIVISION 7 - THERMAL & MOISTURE PROTECTION							
	ELECTRICAL BLDG.							
80	D7 - SSR Roofing & Soffit	$105,900.00				$0.00		$105,900.00
	CENTRIFUGE BUILDING							
81	D7 - SSR Roofing & Soffit	$107,200.00				$0.00		$107,200.00
82	D7 - Corefill Insulation	$2,900.00				$0.00		$2,900.00
83	D7 - EIFS Outsulation	$39,300.00				$0.00		$39,300.00
	DIVISION 8 - DOORS & WINDOWS							
	ELECTRICAL BLDG.							
84	D8 - Hollow Metal Doors, Frames & Hardware	$25,500.00				$0.00		$25,500.00
	CENTRIFUGE BUILDING							
85	D8 - FRP Door & Window	$16,800.00				$0.00		$16,800.00

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Progress Estimate - Lump Sum Work

Contractor's Application

For (Contract):	CHARLES TOWN WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT	Application Number:	8
Application Period:	5/01/23-5/31/23	Application Date:	5/31/2023

			Work Completed		E	F		G
A		B	C	D				
Schedule of Values Item No.	Description	Scheduled Value ($)	From Previous Application (C+D)	This Period	Materials Presently Stored (not in C or D)	Total Completed and Stored to Date (C + D + E)	% (F / B)	Balance to Finish (B - F)
86	D8 - Overhead Door (10'x12')	$16,200.00				$0.00		$16,200.00
87	D8 - Fixed Window	$3,800.00				$0.00		$3,800.00
	DIVISION 9 - FINISHES							
	ELECTRICAL BLDG.							
88	D9 - ACT Ceiling	$38,900.00				$0.00		$38,900.00
89	D9 - Paint Walls, Floors & Doors	$11,000.00				$0.00		$11,000.00
	CENTRIFUGE BUILDING							
90	D9 - Paint Walls, Floors & Doors	$31,000.00				$0.00		$31,000.00
91	D9 - Chemical Containment	$6,500.00				$0.00		$6,500.00
92	D9 - Piping	$5,700.00				$0.00		$5,700.00
	DIVISION 10 - SPECIALTIES							
93	D10 - Fire Extinguishers	$400.00				$0.00		$400.00
94	D10 - Project Signs	$6,700.00				$0.00		$6,700.00
	DIVISION 11 - EQUIPMENT							
	SITE							
95	D11 - Influent Pump Station - Submersible Pumps	$189,200.00	$18,920.00	$0.00	$140,566.30	$159,486.30	84.3%	$29,713.70
96	D11 - Plant Drain Pump Station Submersible Pumps	$89,400.00	$8,940.00	$0.00	$60,242.70	$69,182.70	77.4%	$20,217.30
	CENTRIFUGE BUILDING							
97	D11 - Centrifuge System	$619,200.00	$61,920.00	$0.00	$0.00	$61,920.00	10.0%	$557,280.00
98	D11 - Digester Sludge Pump	$30,000.00	$3,000.00	$0.00	$0.00	$3,000.00	10.0%	$27,000.00
99	D11 - Inline Grinder	$34,500.00	$3,450.00	$0.00	$0.00	$3,450.00	10.0%	$31,050.00
100	D11 - Polymer Feed System	$32,900.00	$3,290.00	$0.00	$0.00	$3,290.00	10.0%	$29,610.00
101	D11 - Polymer Bulk Tank	$7,800.00	$780.00	$0.00	$0.00	$780.00	10.0%	$7,020.00
	UV BUILDING							
102	D11 - UV System with Controls	$303,900.00	$30,390.00	$0.00	$237,600.00	$267,990.00	88.2%	$35,910.00
	HEADWORKS BUILDING							
103	D11 - Mechanical Bar Screen w/Controls	$159,000.00	$15,900.00	$0.00	$107,737.69	$123,637.69	77.8%	$35,362.31
104	D11 - Washer/Compactor w/Controls	$85,600.00	$8,560.00	$0.00	$58,012.61	$66,572.61	77.8%	$19,027.39
105	D11 - Grit Removal System w/Controls	$262,000.00	$26,200.00	$0.00	$70,462.00	$96,662.00	36.9%	$165,338.00
	EXISTING DIGESTER							
106	D11 - Digester Aeration & Mixing System w/Controls	$670,000.00	$67,000.00	$0.00	$337,252.50	$404,252.50	60.3%	$265,747.50
	EXISTING SBR TANKS							
107	D11 - MCP w/ PLC & Instrumentation	$274,800.00	$0.00	$27,480.00	$0.00	$27,480.00	10.0%	$247,320.00
	DIVISION 13 - SPECIAL CONSTRUCTION							
	SCADA / INTEGRATION							
108	D13 - SCADA, Control Panels, MCC, Field Instrumentation	$765,000.00	$76,500.00	$0.00	$36,698.00	$113,198.00	14.8%	$651,802.00
	DIVISION 14 - CONVEYING SYSTEMS							
	CENTRIFUGE BUILDING							

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Progress Estimate - Lump Sum Work

Contractor's Application

For (Contract):	CHARLES TOWN WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT	Application Number:	8
Application Period:	5/01/23-5/31/23	Application Date:	5/31/2023

			Work Completed		E	F		G
A		B	C	D	Materials Presently Stored (not in C or D)	Total Completed and Stored to Date (C + D + E)	% (F / B)	Balance to Finish (B - F)
Schedule of Values Item No.	Description	Scheduled Value ($)	From Previous Application (C+D)	This Period				
109	D14 - Hoist & Monorail	$27,700.00				$0.00		$27,700.00
	HEADWORKS BUILDING							
110	D14 - Screw Conveyor	$70,200.00	$7,020.00	$0.00	$0.00	$7,020.00	10.0%	$63,180.00
	DIVISION 15 - MECHANICAL							
	PROCESS PIPING							
111	D15 - Influent PS - DI Pipe, Fittings, Valves & Sch 40 Stilling Well	$49,000.00	$0.00	$0.00	$16,935.80	$16,935.80	34.6%	$32,064.20
112	D15 - Effluent PS- Sch 40 Stilling Well	$3,900.00				$0.00		$3,900.00
113	D15 - Plant Drain PS - DI Pipe, Fittings, Valves & Sch 40 Stilling Well	$19,500.00	$0.00	$0.00	$4,488.80	$4,488.80	23.0%	$15,011.20
114	D15 - Plan Drain PS - New Top Slab w/Hatch & Vent Pipe	$5,000.00				$0.00		$5,000.00
115	D15 - Plant Drain PS - Portable Hoist w/Socket	$3,000.00				$0.00		$3,000.00
116	D15 - Electrical Bldg- 12" Lug Style BF Valve w/SS Flange Spool	$10,700.00				$0.00		$10,700.00
117	D15 - Centrifuge Bldg. - DI Pipe, Fittings & Valves	$86,800.00	$0.00	$0.00	$25,049.25	$25,049.25	28.9%	$61,750.75
118	D15 - Centrifuge Bldg. - Sch 80 PVC Polymer Feed System	$27,100.00				$0.00		$27,100.00
119	D15 - Sludge Transfer Pump Bldg - DI Pipe, Fittings & Valves	$5,700.00	$0.00	$0.00	$684.20	$684.20	12.0%	$5,015.80
120	D15 - Headworks Bldg. - DI Pipe, Fittings & Valves	$47,200.00	$0.00	$0.00	$4,339.41	$4,339.41	9.2%	$42,860.59
121	D15 - Headworks Bldg. - Sch 80 PVC Drains	$9,000.00				$0.00		$9,000.00
122	D15 - Ex. Digester Bldg. Mixing Sys. Air Comp. Room - 2" SS Air Pip	$11,600.00				$0.00		$11,600.00
123	D15 - Ex. Digester Bldg. Mixing Sys. Air Comp. Room - 2" Sch 40 PV	$3,200.00				$0.00		$3,200.00
124	D15 - Ex. Digester Tank - 6" DI Pipe & Fittings w/Elec. Actuated T-Va	$43,000.00				$0.00		$43,000.00
125	D15 - Ex. Digester Tank - 10" SS Pipe & Valve Air Supply Line to Ma	$19,500.00	$0.00	$0.00	$9,389.98	$9,389.98	48.2%	$10,110.02
126	D15 - Ex. Digester Tank - Pipe Penetrations to Tank by Mack Ind.	$15,700.00				$0.00		$15,700.00
127	D15 - Digester Blower Pad - 10" & 8" SS Pipe, Fittings & Valves	$15,800.00	$0.00	$0.00	$9,389.97	$9,389.97	59.4%	$6,410.03
128	D15 - SBR Tanks - Install Process Sensors & Instrumentation	$12,000.00				$0.00		$12,000.00
	PLUMBING							
129	D15 - Headworks Bldg. - Sch 80 PVC Water Pipe, Fittings, Valves, BF	$35,800.00	$0.00	$7,160.00	$0.00	$7,160.00	20.0%	$28,640.00
130	D15 - Centrifuge Bldg. - Sch 80 PVC Water Pipe, Fittings, Valves, BFF	$46,200.00				$0.00		$46,200.00
131	D15 - Centrifuge Bldg. - Sch 80 PVC Drain Pipe, Fittings, Floor Drains	$16,700.00				$0.00		$16,700.00
132	D15 - Centrifuge Bldg. - Plumbing Fixtures & Eyewash/Shower	$32,800.00				$0.00		$32,800.00
	HVAC							
133	D15 - Electrical Bldg. - Split System HVAC Unit	$22,600.00				$0.00		$22,600.00
134	D15 - Centrifuge Bldg. - Exhaust Fans, Louvers, Unit Heaters	$29,900.00				$0.00		$29,900.00
	DIVISION 16 - ELECTRICAL							
	ELECTRICAL WORK BY S&S ELECTRIC							
135	D16 - Electrical Demolition	$163,500.00	$32,700.00	$32,700.00	$0.00	$65,400.00	40.0%	$98,100.00
136	D16 - Lighting - Material	$11,300.00	$11,300.00	$0.00	$0.00	$11,300.00	100.0%	$0.00
137	D16 - Lighting - Labor	$8,900.00				$0.00		$8,900.00
138	D16 - Gear - Material	$278,300.00	$52,877.00	$0.00	$0.00	$52,877.00	19.0%	$225,423.00
139	D16 - Gear - Labor	$60,900.00	$3,045.00	$0.00	$0.00	$3,045.00	5.0%	$57,855.00

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Progress Estimate - Lump Sum Work

Contractor's Application

For (Contract):	CHARLES TOWN WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT	Application Number:	8
Application Period:	5/01/23-5/31/23	Application Date:	5/31/2023

			Work Completed		E	F		G
A		B	C	D				
Schedule of Values Item No.	Description	Scheduled Value ($)	From Previous Application (C+D)	This Period	Materials Presently Stored (not in C or D)	Total Completed and Stored to Date (C + D + E)	% (F / B)	Balance to Finish (B - F)
140	D16 - Emergency Generator - Material	$382,500.00				$0.00		$382,500.00
141	D16 - Emergency Generator - Labor	$22,700.00				$0.00		$22,700.00
142	D16 - Devices - Material	$5,600.00				$0.00		$5,600.00
143	D16 - Devices - Labor	$7,300.00				$0.00		$7,300.00
144	D16 - Boxes/Troughs - Material	$101,900.00	$5,095.00	$3,057.00	$0.00	$8,152.00	8.0%	$93,748.00
145	D16 - Boxes/Troughs - Labor	$59,900.00	$0.00	$1,198.00	$0.00	$1,198.00	2.0%	$58,702.00
146	D16 - SCADA Equipment Install - Labor	$25,800.00				$0.00		$25,800.00
147	D16 - Conduit - Material	$380,500.00	$133,175.00	$19,025.00	$0.00	$152,200.00	40.0%	$228,300.00
148	D16 - Conduit - Labor	$634,000.00	$139,480.00	$101,440.00	$0.00	$240,920.00	38.0%	$393,080.00
149	D16 - Cable - Material	$487,600.00	$0.00	$24,380.00	$0.00	$24,380.00	5.0%	$463,220.00
150	D16 - Cable - Labor	$358,000.00	$0.00	$17,900.00	$0.00	$17,900.00	5.0%	$340,100.00
151	D16 - Grounding - Material	$12,000.00	$0.00	$1,200.00	$0.00	$1,200.00	10.0%	$10,800.00
152	D16 - Grounding - Labor	$20,700.00	$0.00	$2,070.00	$0.00	$2,070.00	10.0%	$18,630.00
153	D16 - Temporary Electric	$53,500.00	$5,350.00	$16,050.00	$0.00	$21,400.00	40.0%	$32,100.00
	BID ALTERNATE A - INFLUENT METERING VAULT							
154	Bonds & Insurance	$2,800.00	$2,800.00	$0.00	$0.00	$2,800.00	100.0%	$0.00
155	Demolition	$14,000.00				$0.00		$14,000.00
156	Excavation & Backfill	$7,600.00				$0.00		$7,600.00
157	Precast Concrete Vault	$23,000.00	$0.00	$0.00	$17,257.50	$17,257.50	75.0%	$5,742.50
158	Piping, Fittings, Valves & Supports	$45,000.00	$0.00	$0.00	$20,911.23	$20,911.23	46.5%	$24,088.77
159	16" Mag Meter	$14,600.00				$0.00		$14,600.00
160	Electrical Material	$16,000.00	$0.00	$1,600.00	$0.00	$1,600.00	10.0%	$14,400.00
161	Electrical Labor	$29,000.00				$0.00		$29,000.00
	BID ALTERNATE B - WAS METERING VAULT							
162	Bonds & Insurance	$4,400.00	$4,400.00	$0.00	$0.00	$4,400.00	100.0%	$0.00
163	Demolition	$14,700.00				$0.00		$14,700.00
164	Excavation & Backfill	$10,200.00				$0.00		$10,200.00
165	Precast Concrete Vault	$21,000.00	$0.00	$0.00	$16,557.50	$16,557.50	78.8%	$4,442.50
166	Piping, Fittings, Valves & Supports	$65,600.00	$0.00	$0.00	$2,613.43	$2,613.43	4.0%	$62,986.57
167	Flow Meters	$17,100.00				$0.00		$17,100.00
168	Misc. Metals	$23,000.00				$0.00		$23,000.00
169	Electrical Material	$33,000.00	$0.00	$3,300.00	$0.00	$3,300.00	10.0%	$29,700.00
170	Electrical Labor	$46,000.00				$0.00		$46,000.00
	CHANGE ORDER #1							
171	CHANGE ORDER #1	$498,183.42	$298,910.00	$199,273.42	$0.00	$498,183.42	100.0%	$0.00
172	CHANGE ORDER #2	$41,179.57				$0.00		$41,179.57
	SubTotal	**$10,690,362.99**	**$1,667,092.00**	**$666,067.42**	**$1,228,247.59**	**$3,561,407.01**	**33.3%**	**$7,128,955.98**

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Stored Material Summary

Contractor's Application

For (Contract):	CHARLES TOWN WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT							Application Number:	8		
Application Period:	5/01/23-5/31/23							Application Date:	5/31/2023		
A		B	C		D		E		F		G
					Stored Previously				Incorporated in Work		
Bid Item No.	Supplier Invoice No.	Submittal No. (with Specification Section	Storage Location	Description of Materials or Equipment Stored	Date Placed into Storage (Month/Year)	Amount ($)	Amount Stored this Month ($)	Subtotal Amount Completed and Stored to Date (D + E)	Date (Month/ Year)	Amount ($)	Materials Remaining in Storage ($) (D + E - F)
34, 37, 42, 158, 166	S100204638.001		Inwood shop	CITCO Water - Piping, Valves, Fittings for Yard Piping & Bid Alternates	1/2023	$16,302.08		$16,302.08	4/2023	$10,737.51	$5,564.57
111, 113, 117, 119, 158, 166	S100198279.001		Inwood shop	CITCO Water - Piping, Valves, Fittings for Mechanical Piping & Bid Alternates	1/2023	$33,962.32		$33,962.32			$33,962.32
136	3624349		onsite	Scott Electric - lighting	1/2023	$3,299.00		$3,299.00	3/2023	$3,299.00	
42	S100204638.002		Inwood shop	CITCO Water - Piping, Valves, Fittings for Yard Piping	1/2023	$5,281.95		$5,281.95			$5,281.95
158	S100198279.002		Inwood shop	CITCO Water - Piping, Valves, Fittings for Bid Alternate A	1/2023	$7,075.75		$7,075.75			$7,075.75
138	S6606924.005, S6606924.003		onsite	Schaedler yesco electrical material for gear	2/2023	$2,481.00		$2,481.00	3/2023	$2,481.00	
13	21073974		Inwood shop	ISCO Industries Piping for Bypass pump	2/2023	$6,795.23		$6,795.23	3/2023	$6,795.23	
43	S100207506.001		Inwood shop	CITCO Water - Nyloplast Drain Basins	2/2023	$14,097.00		$14,097.00	4/2023	$14,097.00	
171	483242		Inwood shop	Skyline Steel - H-Piles	3/2023	$62,060.00		$62,060.00	4/2023	$62,060.00	
106	6183.03-.05		Inwood shop	Enviromix, Inc. - Digester Aeration & Mixing Sys w/Controls	3/2023	$259,425.00		$259,425.00			$259,425.00
157,165	MIVC0029470		Inwood shop	Mack Industries - PS Meter Vault, WAS Valve Vault	4/2023	$33,815.00		$33,815.00			$33,815.00
102	902090889		Inwood shop	Veolia UV System	4/2023	$237,600.00		$237,600.00			$237,600.00
117	S100211394.001		Inwood shop	CITCO Water - Process Piping for Centrifuge Bldg	4/2023	$5,774.80		$5,774.80			$5,774.80
117	S100209868.002		Inwood shop	CITCO Water - Process Piping for Centrifuge Bldg	4/2023	$4,582.50		$4,582.50			$4,582.50
117	S100198279.004		Inwood shop	CITCO Water - Process Piping for Centrifuge Bldg	4/2023	$3,386.75		$3,386.75			$3,386.75
111,120	S100209822.004		Inwood shop	CITCO Water - Process Piping for HW Bldg & Inf PS	4/2023	$11,549.36		$11,549.36			$11,549.36
33	S100213814.001		Inwood shop	CITCO Water - Yard Piping for Water Svc to Centrifuge Bldg	4/2023	$5,871.20		$5,871.20			$5,871.20
158	S100211150.003		Inwood shop	CITCO Water - Piping for Bid Alternate A - Inf. Metering Vault	4/2023	$5,581.64		$5,581.64			$5,581.64
105	9865-1, 9865-2		Inwood shop	Envirodyne Systems Inc. - Grit Removal System	4/2023	$70,462.00		$70,462.00			$70,462.00
13	0134274-IN		Inwood shop	Precision Pump & Valve - Pumps for bypass	4/2023	$32,204.00		$32,204.00	5/2023	$32,204.00	
103,104	93254		Inwood shop	Zima Corporation - Bar Screen, Washer/Compactor	4/2023	$165,750.30		$165,750.30			$165,750.30
108	220802-1		Inwood shop	Micro-Tech Designs, Inc. - SCADA equipment	4/2023	$36,698.00		$36,698.00			$36,698.00
106	6183.06		Inwood shop	Enviromix, Inc. - Diffusers, Aeration piping, pipes/supports	5/2023		$77,827.50	$77,827.50			$77,827.50
125,127	683		Inwood shop	B.A. Martin Welding - SS Piping for Digester	5/2023		$18,779.95	$18,779.95			$18,779.95
71-75	1457		Inwood shop	Southern Steel Products Company - Misc. Metals for Cent. Bldg.	5/2023		$38,450.00	$38,450.00			$38,450.00
95-96	9261		Inwood shop	Pumpman Pittsburgh - Submersible Pumps	5/2023		$200,809.00	$200,809.00			$200,809.00
			Totals			**$1,024,054.88**	**$335,866.45**	**$1,359,921.33**		**$131,673.74**	$1,228,247.59

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EnviroMix Inc.
701 Bay St
Charleston, SC 29403 US
+1 8438132028
accounting@enviro-mix.com
www.enviro-mix.com

Invoice

BILL TO	SHIP TO
Alvarez Contractors, Inc Attn: Katie Alvarez PO Box 555 Oakland, MD 21550	Alvarez Contractors 3436 Patterson Mtn. Rd Spring Dale, WV 25986

INVOICE #	DATE	TOTAL DUE	DUE DATE	TERMS	ENCLOSED
6183.06	04/30/2023	$70,044.75	05/30/2023	Net 30	

P.O. NUMBER
11995

DATE	ACTIVITY	QTY	RATE	AMOUNT
	Aeration Diffusers, Aeration piping, drop pipes and supports	1	77,827.50	77,827.50
	Retainage Retainage	1	-7,782.75	-7,782.75

SUBTOTAL	70,044.75
TAX	0.00
TOTAL	70,044.75
BALANCE DUE	**$70,044.75**

Southern Steel Products Company
P.O. Box 2406
Clarksburg, WV 26302-2406
PH: 304-624-7616
FAX: 304-624-7618
pwinans@southernsteel.net

5/23/2023 1457

Alvarez Contractors, Inc.
Attn: Katie Alvarez
P.O. Box 555
Oakland, MD 21550

22-295
Charles Town WWTP

Net 30 Days 5/23/2023

3000	Galvanized Pipe Bollards Galvanized Lintels Monorail Framing Covered Storage Framing Stainless Steel Polymer Fill Station Aluminum Grating Supports	38,450.00	38,450.00

A FINANCE CHARGE of 1 1/2% per month (18% ANNUAL will be added to all PAST DUE accounts.
A $15.00 Fee will be charged on all returned checks.

$38,450.00

B. A. Martin Certified Welding, LLC
P. O. Box 193
Gerrardstown, WV 25420
3046715492

INVOICE

DATE	INVOICE #
5/15/2023	683

BILL TO

Alvarez Contractors Inc.
P.O. Box 555
Oakland, Md 21550

TERMS	DUE DATE
Net 30	6/14/2023

PO NUMBER	PROJECT

SERVICE DATE	DESCRIPTION	QUANTITY	RATE	AMOUNT
5/1/2023	Stainless materials for Charlest Town WWTP		18,779.95	18,779.95
	4- 10" SS Sch 10 304L Weldpipe 20'			
	1- 10" SS Sch 10 304L 45 elbow			
	2- 10"x8" SS sch 10 304L Conc Reducer			
	3- 10" SS 304L #150 S/O Flanges			
	1- 10" SS sch 10 Tee			
	3- 10" SS Sch 10 BW 90's			
	6- 8" SS Sch10 S/O Flanges			
	2- 1-1/2" SS Sch 40 Pipe 20'			
	2- 1-1/2" SS Socket 90 Elbow			
	2- 1-1/2" SS Socket 45 Elbow			
	2- 1-1/2" SS 3150 S/O Flanges			
	Sales Tax		6.00%	0.00
			TOTAL	$18,779.95

lane@bamartinwelding.com

PumpMan Pittsburgh

COMMERCIAL | INDUSTRIAL | MUNICIPAL PUMP SYSTEMS
Service, Repair, Equipment Sales, Parts & Expertise

Invoice

Invoice No.: 9261
Page: 1 of 1
Date: 5/25/2023
Salesperson: Philip Lusk

Bill To 17

Alvarez Contractors, Inc.
9022 Mountainberry Circle
Frederick MD 21702
USA

Ship To

Alvarez Contractors, Inc.
Will Advise
USA

Order	Purchase Order	Ship Via	Project Name	Terms
4965	11930	Best Way Allowed	Charles Town WWTP	Net 30 Days

Three(3) Pentair Fairbanks Nijhuis 8" Model D5434SMV Submersible Solids Handling pumps to provide 1,700 GPM @ 23' TDH with 15 HP; 900 RPM; 460v/3/60 motor UL Listed for Class I, Division I, Group C & D hazardous location. Pump volute and impeller are cast iron construction ASTM A48 Class 30 and capable of passing a 3.5" spherical solid; tandem mechanical seals in oil filled chamber, upper seal Silicon Carbide/Tungsten Carbide faces, lower seal faces are Silicon Carbide/Tungsten Carbide, SS impeller fastener, dynamic balanced impeller, 50' power & control cable, Quik-Pik SS lifting chain with nylon tether cord and grab link, seal leak moisture sensors, stainless steel impeller (300-350 BHN) and volute (410-484 BHN) wear rings, non-sparking slide bracket, CI Mounting base with 8" 90O discharge elbow and SS upper guide bar bracket. (2" sch. 40 stainless steel guide rails not included), certified factory performance test, Two (2) Year Semi-Annual Predictive Maintenance Inspection Service Agreement.

Two(2) Pentair Fairbanks Nijhuis 4" Model D5433MV Submersible Solids Handling pumps to provide 500 GPM @ 46' TDH with 15 HP; 1,200 RPM; 460v/3/60 motor UL Listed for Class I, Division I, Group C & D hazardous location. Pump volute and impeller are cast iron construction ASTM A48 Class 30 and capable of passing a 3" spherical solid; tandem mechanical seals in oil filled chamber, upper seal Silicon Carbide/Tungsten Carbide, lower seal faces are Silicon Carbide/Tungsten Carbide, SS impeller fastener, dynamic balanced impeller, 50' power & control cable, Quik-Pik SS lifting chain with nylon tether cord and grab link, seal leak moisture sensors, stainless steel impeller (300-350 BHN) and volute (410-484 BHN) wear rings, non-sparking slide bracket, CI Mounting base with 4" 90O discharge elbow, and SS upper guide bar bracket. (2" sch. 40 stainless steel guide rails not included), certified factory performance test, Two (2) Year Semi-Annual Predictive Maintenance Inspection Service Agreement.

Remit To:

PumpMan Pittsburgh LLC
P.O. Box 411024
Boston, MA 02241-1024

Sales Amount	200,809.00
Misc Charges	0.00
Freight	0.00
Sales Tax	0.00
Prepaid Amount	0.00
Total	200,809.00

Thank you for your order!

CHARLES TOWN UTILITY BOARD

CITY OF CHARLES TOWN

JEFFERSON COUNTY, WEST VIRGINIA

POTOMAC FARMS WATER SYSTEM EVALUATION

JUNE 2023

DRAFT

Prepared By

GD&F
GWIN
DOBSON &
FOREMAN
ENGINEERS

INTRODUCTION

The Charles Town Utility Board (CTUB) is currently evaluating the Potomac Farms Water System (System). GD&F has reviewed information provided by the Health Department pertaining to the System. GD&F has been requested to briefly summarize the System and evaluate CTUB's options to provide them with potable drinking water service.

The System is over 41 years old and serves 26 single family customers. Source water is supplied via a single groundwater well and the plant consists of disinfection only type treatment and a small diaphragm pressure tank. The system capacity is rated for 30 GPM (43,000 GPD) with an average reported production flow rate of 3.61 GPM (5,200 GPD). The water system has been issued numerous violations related to monitoring and reporting and has been subject to several State and Federal Administrative Orders/Notice of Violations. The most notable violation is the routine exceedance of nitrate levels.

EXISTING POTOMAC FARMS WATER SYSTEM

The existing Potomac Farms Treatment Facility is located off Bakerton Road at address 432 Carter Avenue, Harpers Ferry, WV. The well is located directly in front of the treatment facility on a small parcel of land, apparently owned by Potomac Farms. The existing treatment facility building is stick built and is very small and congested. The plant lacks a functioning master meter and consists of an HDPE sodium hypochlorite day tank, diaphragm metering pump, 85-gallon hydropneumatic tank and two (2) 500-gallon steel chlorine contact tanks.

The distribution system consists of approximately 5,400 LF of 2" PVC main pressurized to between 40-60 PSI. The Potomac Farms development consists of about 50 lots, therefore, about ½ of the residents own private wells. The customers are believed to be charged a flat rate of $50 per month for water service. There is currently no public sewer available in this area.

EXISTING POTOMAC FARMS WATER SYSTEM ISSUES

The System operators have had historical problems with sample collection, monitoring and reporting violations. The MCL for nitrate (10.0 mg/L) was exceeded seven (7) times from 1995 to 2020. The well is located in karst geology and a Source Water Assessment Report rated the well as having a "high susceptibility" to contamination. The well also has high hardness, with reported values in excess of 320 mg/L $CaCO_3$. There are no water system maps or drawings available and the burial depth of the 2" main is likely not installed with adequate cover due to rock outcropping. None of the residential customers are metered. There is no fire protection and no known blow-offs located within the distribution system.

The existing well pump is rated for 25 GPM and reportedly runs at an estimated 30 GPM. This well pump is over-sized for this small system which results in excessive well pump starts/stops. The 85-gallon pressure tank appears to be undersized and the use of only one (1) well and lack of an emergency generator makes the facility vulnerable to providing adequate uninterrupted water service to its customers. The facility also lacks water storage, as at least one of the 500-gallon tanks is needed for chlorine contact time. The treatment plant lacks a continuous online chlorine analyzer, alarm dialer, emergency generator, security fence and the plant doors need replaced. The current condition of the well pump and 500 gallon chlorine contact tanks are unknown.

EVALUATING OPTIONS

A. Upgrade WTF

The existing water treatment plant could be upgraded such that it complies with the WV BPH drinking water requirements. This would involve at a minimum, a new raw water master meter, new peristaltic chemical feed pump skid, an online continuous chlorine analyzer, a pre-packaged duplex anion exchange resin type nitrate removal treatment system, softening system, buried chlorine contact piping, an alarm dialer, brine disposal and/or waste tank, new piping and electrical systems including automatic transfer switch and emergency generator and new larger hydropnuematic tank. The new treatment system would most likely not fit inside the existing building. Even if the new equipment would fit, major building architectural, mechanical, HVAC and electrical upgrades would be necessary. The entire existing treatment system would need upgraded and/or replaced. Buried chlorine contact piping would need installed adjacent to the treatment facility. Site security would also need implemented such as construction of a chainlink fence, gate and stabilized area. A new smaller well pump on a VFD and pitless adapter should also be considered. The total estimated probable construction cost for this upgrade is $780,000 with the total estimated project cost estimate at $1,024,000. Refer to Table No. 1 below under the Cost Estimates Section.

The proposed nitrate removal system would feature duplex FRP tanks filled with an anion selective resin, automated valve and piping rack, a brine tank and a control panel. Refer to Appendix A for cutsheets and drawings on a new AdEdge nitrate removal system. This system requires the addition of salt (sodium chloride) and exchanges the salt for nitrate. Concentrated nitrate waste then ends up in a brine tank and/or waste tank. This brine would need to be hauled and disposed of offsite since no nearby public sewer is available. The actual concentration of nitrate waste is strictly dependent upon incoming nitrate levels and flow rate through the filters. It is estimated that a filter would regenerate about once every 2-3 days of operation and would result in about 600-700 gallons of concentrated brine. Also, due to the high well water hardness, which effects nitrate removal efficiency, softening of the water prior to the nitrate removal system would be necessary. This would involve a duplex water softening system with valve rack and brine tank. The brine from the softeners would also need to be disposed of offsite. It is estimated to cost $1,000 per month to haul brine waste from the WTP to the Charles Town WWTP.

It does not appear that the existing Potomac Farms water treatment building or site is large enough to accommodate the new treatment system. Potomac Farms would likely have to grant CTUB additional land to upgrade the plant. The building would need to house new piping, equipment, instrumentation, nitrate removal system, softening system and electrical equipment. The site would need to feature new buried chlorine contact piping, a new emergency generator and potentially a below-grade waste tank.

Elevated nitrates in well water generally correlates to some type of surface water influence. It is important to note that if the groundwater well is ever determined to be under the influence of surface water, a particulate filtration system would be required along with the nitrate removal system or an additional well would need drilled that is not deemed to be surface water influenced.

The sustainability and yield of the existing well is unknown, although it has been in service for a significant amount of time with no reported yield issues.

Operation and maintenance costs would include electrical, HVAC, salt and brine disposal, licensed water operator duties and water quality testing. Salt would be required for both the nitrate removal and softening systems. Also, concentrated brine waste from both systems would need to be disposed of offsite (likely to the CTUB WWTP).

B. Connect System to Existing Glen Haven Water System

The Glen Haven water system is a booster pump chlorinated hydropnuematic type treatment system supplied by a groundwater well. The Glen Haven water system is located at 340 Edmond Road, Suite A, Kearneysville, WV 25430. The well house is supplied by a single well and pump. The Glen Haven water well is at a depth of approximately 100 feet and is directly adjacent to the Potomac River. The well has a capacity (or safe yield) of 65,000 gallons per day (45 gallons per minute). The well pump features a submersible level transducer for well level monitoring. The Glen Haven system utilizes two (2) new in ground precast concrete clearwells each with a capacity of 5,750 gallons for a total volume of 11,500 gallons. Each concrete tank contains four (4) FRP baffle walls to increase the effective volume, and thus a baffling factor of 0.70 is applied to these tanks. Each tank yields 50 minutes of detention time at the peak flow rate of 80 gallons per minute. The water system also contains a pre-packaged duplex water booster pumping system with hydropnuematic tank and emergency generator. The existing Glen Haven distribution system includes 9,500 LF of 2" and 4" PVC waterline.

The current existing average daily demand of the Glen Haven system is 7,250 gallons per day (5 GPM). The current existing average booster pump run times are about 8 hours per day for one (1) of the two (2) pumps. The elevation of the water plant is about 300 feet above sea level and the discharge pressure at the booster pump station is between 40-60 PSI.

There is an existing 4” PVC water main along the intersection of Marilyn Road and Virginia Avenue, which is located just east of the town of Bakerton. The Glen Haven water system is less than 1.5 miles from the Potomac Farms Water System, traveling along existing roadways. The average existing grade elevation of the Potomac Farms Water System is 450 feet above sea level. Thus, construction of a duplex booster pump station would be necessary to supply water from the Glen Haven system to Potomac Farms.

The majority of the new 4” waterline would need to be located either within existing roadways or road right-of-ways. WVDOH permitting would be required. Additional easements/land would need to be acquired for the new booster pump station and electrical service provided to the station. The booster pump station would likely be pre-packaged; however, site work would still be required along with electrical work and a new emergency generator. The total estimated probable construction cost for this upgrade is $1,100,000 with the total estimated project cost estimate at $1,407,000. Refer to Table No. 2 below under the Cost Estimates Section.

It appears that there is more than sufficient available capacity at the Glen Haven system to provide potable drinking water to the Potomac Farms Water System. It is important to note that the Glen Haven system also relies on a single groundwater well for its source of supply.

C. Connect System to Existing Harpers Ferry Water System

The Glen Haven water system is over three (3) miles away from the Harpers Ferry Water System and would require a railroad crossing and traveling along Bakerton Road. This option is not considered feasible and no further investigation was performed.

D. Cost Estimates

TABLE 1: CTUB UPGRADE EXISTING POTOMAC FARMS WATER TREATMENT SYSTEM PRELIMINARY PROBABLE PROJECT COST ESTIMATE

1.	Decommission and Demolition of Existing Plant	$	40,000
2.	Architectural/Structural/HVAC Building Replacement	$	85,000
3.	Sitework/Security Upgrades	$	40,000
4.	New Instrumentation (Meters and Chlorine Analyzer)	$	20,000
5.	Auto-Dialer	$	5,000
6.	New Sodium Hypochlorite Chemical Feed Pump Skid	$	15,000
7.	New AdEdge Pre-packaged Duplex Nitrate Removal Filter System	$	140,000
8.	New Duplex Water Softening System	$	25,000
9.	New Brine Waste Tank(s)	$	60,000
10.	New SCADA System	$	60,000
11.	New Buried PVC Chlorine Contact Piping	$	75,000
12.	New Hydropneumatic Tank and Pressure Transmitter	$	15,000
13.	New Process Piping and Valves	$	25,000
14.	Electrical Upgrades including Transfer Switch and Emergency Generator	$	100,000
15.	New Well Pump, VFD and Pitless Adapter	$	25,000
16.	General Conditions/Mobilization	$	50,000
	Total Estimated Construction Cost	**$**	**780,000**
17.	Engineering Costs (Design, Permitting and Construction -15%)	$	117,000
18.	Legal Fees (Easements, ROWs and Agreements)	$	10,000
19.	Other Soft Costs [Admin., Contingency, etc.] (15%)	$	117,000
	Total Estimated Project Cost	**$**	**1,024,000**

TABLE 2: CTUB EXTEND SERVICE LINE FROM GLEN HAVEN TO POTOMAC FARMS WATER SYSTEM PRELIMINARY PROBABLE PROJECT COST ESTIMATE

1.	1.5 Miles of 4" PVC Line including Valves, Appurtenances and Restoration	$	670,000
2.	General Conditions/E&S/Traffic Control	$	75,000
3.	New Packaged Duplex Booster Pump Station (Including Electrical, Hydropnuematic Tank and Piping)	$	250,000
4.	New Pump Station Site Work and Power	$	50,000
5.	New Emergency Generator	$	15,000
6.	Decommissioning/Demolition of Existing Treatment Plant	$	40,000
	Total Estimated Construction Cost	**$**	**1,100,000**
7.	Engineering Costs (Design, Permitting and Construction – 12%)	$	132,000
8.	Legal Fees (Easements, ROWs and Agreements)	$	10,000
9.	Other Soft Costs [Admin., Contingency, etc.] (15%)	$	165,000
	Total Estimated Project Cost	**$**	**1,407,000**

E. Recommendation to CTUB

GD&F's recommendation is to construct a new packaged booster pump station and extend service from the existing Glen Haven Water System. Although this option has a greater capital project cost, the overall operation and maintenance costs would be more feasible.

If the updated treatment plant option is selected, a thorough building and site evaluation would be necessary along with deed research to confirm the existing lot size is sufficient and ownership of the property. Site safety improvements should be made which consists at a minimum of a chain-link fence and gate and stabilized stone parking area. The original building would need replaced and a new transfer switch and emergency generator added. A new smaller well pump and pitless adapter with new larger hydropnuematic tank would be required. A new automated packaged duplex nitrate removal and softening system would be installed inside the new plant. New buried chlorine contact piping would be required. All new instrumentation and chemical feed equipment should be provided along with new piping, including new control and telemetry systems. This building and equipment would involve a significant amount of operation and maintenance time and expense ($4,000-$5,000 per month).

The booster pump station option would cost CTUB more money to construct; however, operation and maintenance costs associated with the booster pump station option would be substantially less when compared to upgrading the existing plant. Primary O&M costs associated with a plant upgrade include salt purchasing and brine disposal of both the nitrate removal and softening systems. Several thousands of gallons of brine waste would be generated each week by the plant and would require offsite hauling and disposal costs. Taylor's would likely be contracted to haul the brine from the water plant to CTUB's Charles Town Wastewater Treatment Plant. A Charles Town WWTP NPDES permit modification would also be required due to the high nitrates and sodium of the brine. The plant upgrade option would also involve additional water quality and laboratory testing along with additional dedicated water operator activities when compared to the booster pump station option. Also, a detailed raw water quality analysis would need to be performed prior to design of the system. It is important to note that the nitrate removal system would not remove all of the nitrate in the raw water. It is estimated that the effluent readings would be between 2-3 mg/L of nitrate. Blending or bypassing of the nitrate removal system may also be considered.

A site would need selected for the booster pump station option and power and piping would need to be extended to the site. There appears to be land along Marilyn Road for construction of the booster pump station. Road crossings, WV DOH permitting and easements would be required for the project. An over-sized hydropneumatic tank should be installed inside the pump station for additional storage capacity. The booster pump station should be relatively low maintenance, with O&M costs pertaining to power consumption only. A new telemetry panel should be added for offsite monitoring of the station.

Regardless of the source water, the existing Potomac Farms distribution system would need evaluated and upgraded. A detailed system map showing all services and valves would be required. CTUB should plan on installing additional valves, replacing sections of main and adding blow-offs to the distribution system. The distribution system would require additional flushing and water quality testing procedures be performed on a routine basis. New individual water meters and meter pits should be installed at some point for each customer. Projected costs for upgrading the distribution system at this time are unknown.

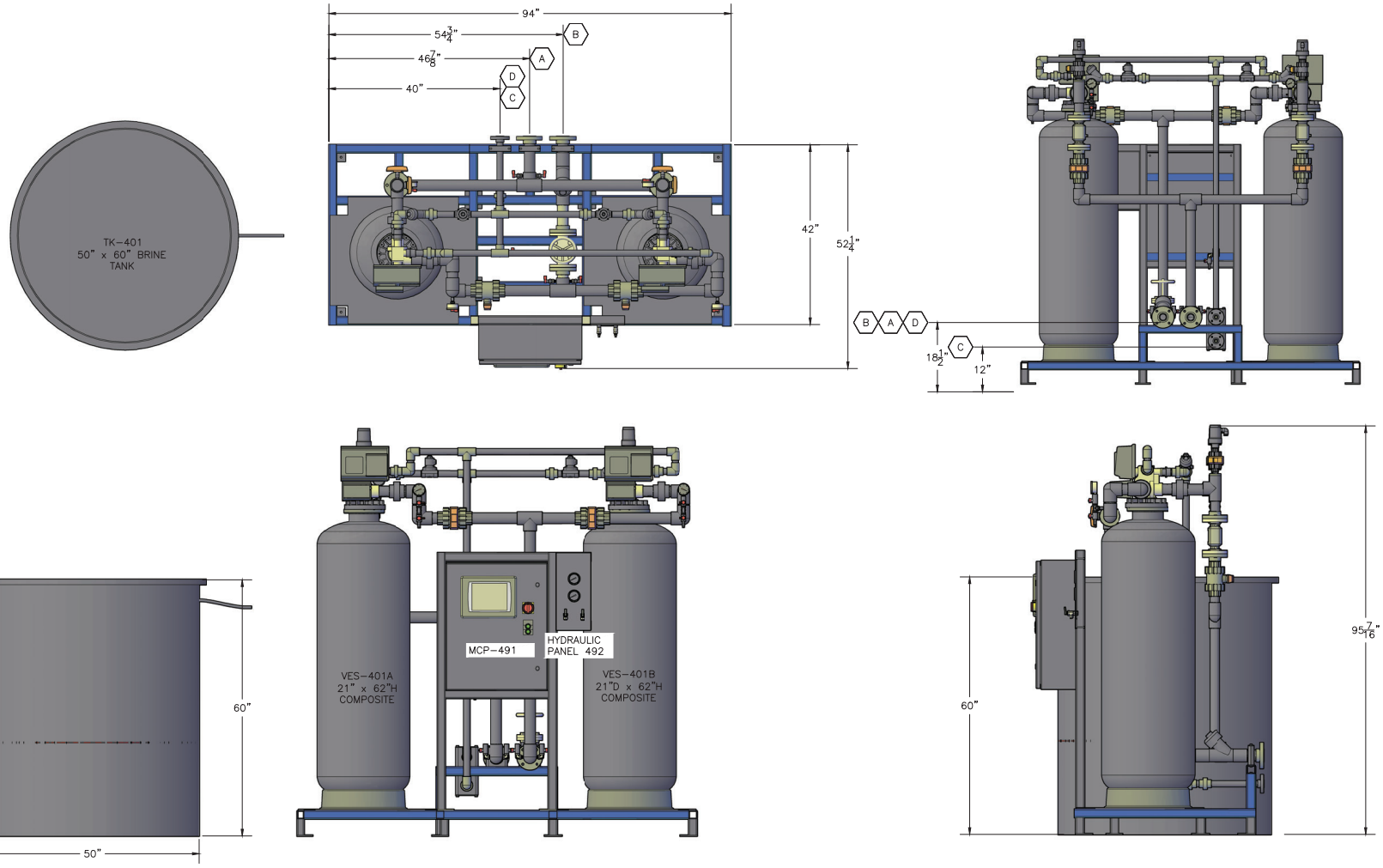
Regardless of the source water option selected, each is dependent upon a single true groundwater well. This is concerning both in regard to sustainability, along with the wells remaining non-surface water influenced. No fire protection is or will be provided to the Potomac Farms system regardless of the source water option selected. Additional storage capacity should be provided, regardless of which source water option is selected via larger hydropnuematic tanks.

Source water is becoming ever so important and that is why GD&F is reluctant to recommend abandoning a producing groundwater well. However, due to the elevated nitrates, it does not appear feasible to treat this well source. It is recommended that CTUB pursue the latest rounds of PFAS/PFOA testing of all existing wells (especially Glen Haven source) prior to any interconnections.

Financially, a project of this magnitude could not be passed onto the existing 26 Potomac Farms customers alone. It is recommended that CTUB perform a rate analysis to determine if this project is financially feasible.

APPENDIX A

ADEDGE NITRATE REMOVAL SYSTEM



FOR APPROVAL

AdEdge water technologies
2055 Boggs Road
Duluth, GA 30096
P. 678-835-0052 F. 678-835-0057
www. adedgetechnologies.com

This drawing is the exclusive property of AdEdge Water Technologies, L.L.C. Its acceptance constitutes an agreement that it shall be expressly used for subject project and shall be returned upon request. Information contained on, or derived from this drawing, is not to be communicated, disclosed, used or copied without prior authorization.

TP.	SERVICE CONNECTIONS:	TYPE/MATERIAL:
A	SYSTEM WATER INLET	2" SCH80 PVC 150# FLANGE
B	SYSTEM TREATED WATER OUTLET	2" SCH80 PVC 150# FLANGE
C	SYSTEM BACKWASH OUTLET	1" SCH80 PVC 150# FLANGE
D	AUX. BACKWASH INLET	1" SCH80 PVC 150# FLANGE

TP.	SERVICE CONNECTIONS:	TYPE/MATERIAL:

REV. #	DATE:	BY:	APPROVED BY:	REVISION DESCRIPTION:

DRAWN BY:	CHECKED BY:	APPROVED BY:	PROJECT #:	DATE:	SCALE:
SM	SP	BM	SWNJ-0322	10/08/21	NTS

MODEL: APUIX-N03-2162C0-2-290-PLC
CUSTOMER:
TITLE: APUIX GENERAL ARRANGEMENT
DRAWING NUMBER: M-001
SHEET: 5 OF 7

AdEdge *ADNO3 IX*

Nitrates Reduction Technology for Water Systems

AdEdge ADNO3 IX is an anion exchange selective resin for nitrate removal supplied in the chloride form as moist, tough, uniform spherical beads. It is espcially useful in nitrate removal applications due to its ability to remove nitrates preferentially in the presence of sulfates and other divalent ions. The use of AdEdge ADNO3 IX media eliminates nitrate dumping and retains a greater degree of its operating capacity in the presence of high levels of sulfates where standard resins would suffer loss in operating efficiencies and exhibit nitrate dumping in the presence of sulfates.

Application: *Nitrates Removal*

AdEdge ADNO3 IX is ideal for use in potable water as well as non-potable and environmental remediation applications for the removal of nitrates. The resin is designed to selectively remove nitrates and eliminate the possibility of nitrate-dumping in the presence of sulfates and other divalent ions. The high efficiency AdEdge ADNO3 IX media can remove nitrates below the EPA MCL of 10 mg/L. The AdEdge ADNO3 IX systems can deliver the needed performance to remove the nitrates with periodic regeneration using NaCl brine. AdEdge ADNO3 IX systems are customized and manufactured in-house to site specific requirements and available in flows from 10 gpm to 1 MGD.



AdEdge APU System
using AdEdge IX media

Performance Features

- ***HIGHEST OPERATING CAPACITY OF ANY NITRATE SELECTIVE RESIN***

  The unique amine functional group has been optimized to retain the highest operating capacity for a selective resin.

- ***AVAILABLE AS NSF/ANSI-61 CERTIFIED***

  WQA Gold Seal Certified

- ***HIGHLY UNIFORM PARTICLE SIZE, LOW PRESSURE DROP***

  16 to 50 mesh range; giving a LOWER PRESSURE DROP while maintaining SUPERIOR KINETICS

- ***SUPERIOR PHYSICAL STABILITY***

  93% plus sphericity combined with high crush strengths and uniform particle size provide greater resistance to bead breakage. This results in longer resin life and lower pressure drop.

- ***COMPLIES WITH FDA REGULATIONS FOR POTABLE WATER APPLICATIONS***

  Conforms to paragraph 21 CFR173.25 of the Food Additives Regulations of the F.D.A.*

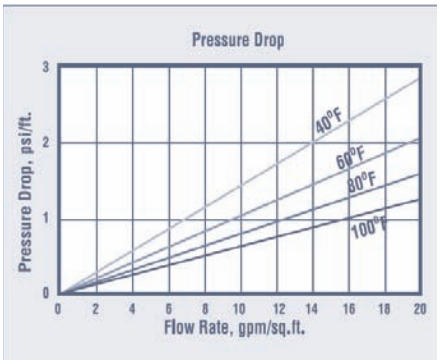
*For potable water applications, the resin must be properly pre-treated, usually by multiple exhaustion and regeneration cycles, to ensure compliance.

AdEdge ADNO3 IX Nitrates Removal Technology

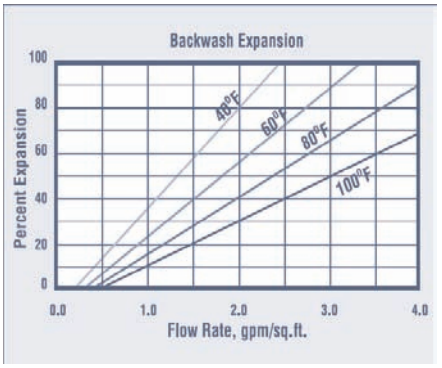
ADNO3 IX Physical Properties

Polymer Structure	Styrene with DVB
Functional Group	$R\text{-}N\text{-}R_3^+Cl^-$
Ionic Form, as shipped	Chloride
Physical Form	Tough,Spherical Beads
Screen Size Distribution	16 to 50 Nominal
+16 mesh (U.S. Std)	< 5 percent
-50 mesh (U.S. Std)	< 1 percent
pH Range	0 to 14
Water Retention Cl Form	52 to 60 percent
Solubility	Insoluble
Approximate Shipping Weight	
Chloride Form	42 lbs/cu.ft.
Swelling Cl– to OH– Form	Approximately 12 percent
Total Capacity	0.85 meq / mL

Hydraulic Properties



The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate, at various water temperatures.



After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. This will remove any foreign matter and reclassify the bed. The graph below shows the expansion characteristics of **AdEdge ADNO3 IX.**

Suggested Operating Conditions

Maximum Temperature	
Salt Form	170ºF
Minimum Bed Depth	24 inches
Backwash Rate	50 to 75% Bed Expansion
Regenerant Concentration	2%
Regenerant Flow Rate	0.25 to 1.0 gpm/cu. ft.
Regenerant Contact Time	At least 30 Minutes
Regenerant Level	2 to 15 pounds/cu. ft.
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	10 to 15 gallons/cu. ft.
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	35 to 60 gallons/cu. ft.
Service Flow Rate	2 to 4 gpm/cu. ft.

***CAUTION:DO NOT MIX ION EXCHANGE RESIN WITH STRONG OXIDIZING AGENTS.** Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials,such as ion exchange resins. Material Safety Data Sheets (MSDS) are available for all ResinTech Inc.products. To obtain a copy, contact your local ResinTech sales representative or our corporate headquarters.They contain important health and safety information.That information may be needed to protect your employees and customers from any known health and safety hazards associated with our products. We recommend that you secure and study the pertinent MSDS for our products and any other products being used. These suggestions and data are based on information we believe to be reliable. They are offered in good faith.However we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions.

AdEdge Water Technologies, LLC. • 5152 Belle Wood Court, Suite A • Buford, GA 30518 • 1-866-8ADEDGE (678) 835-0052 (FAX)(678) 835-0057
e-mail info@adedgetechnologies.com www.adedgetechnologies.com

Wendy's Pump Station Upgrades	
Contractor	Bid Amount
Alvarez	$39,987.00
Snyder Environmental	$74,450.00

Notes:

Engineer's Estimate	$100,000.00
Pumps Purchased in 2022	$29,900.00

June 8, 2023

Kristen M. Stolipher
Utility General Manager
Charles Town Utility Board
661 South George Street, Suite 101
Charles Town, WV 25414

Re: **Proposal for Property Rights Acquisition**

Ms. Stolipher:

This letter shall serve as confirmation of ERM & Associates (ERM) interest in proposing for assisting in acquiring property rights for the Charles Town Utility Board's (Charles Town Utilities) Collection System Project. We appreciate Charles Town Utilities for inviting our firm to provide the attached proposal and for considering us as a service provider for this important project.

ERM was founded more than 40 years ago as a sole proprietorship intended to serve a single client. Today the firm has grown into team of experienced professionals specializing in land and easement acquisition for municipal utility providers such as Charles Town Utilities. Our full list of Acquisition Services includes: negotiation for the acquisition of both real property and easements; coordination with municipality staff, legal professionals, plat & plan engineers, property managers, closings attorneys and/or other parties as may be appropriate. Real Estate services include: appraisal services, in-house brokerage services, title searches, site location and relocation/exchange studies.

We are certain that our firm can provide the ability, experience and resources necessary to perform any or all of the tasks required for your project. We also firmly believe that the small size and specialized nature of our firm provide a more effective solution than our competitors, for which ROW & easement acquisition is not a primary line of business. We are excited to offer the enclosed proposal for your consideration.

Per the discussion we had on May 30th, our proposal for the acquisition of permanent and temporary easements and the necessary preparation of documents is detailed as follows:

49 Culpeper Street
Warrenton, Virginia 20186
(540) 347-5547 office
www.ermassoc.com

Charles Town Utility Board's Collection System Project:

This proposal assumes that ERM will use industry standard practices to negotiate the acquisition of permanent and temporary construction easements on residential, commercial, utility, conservancy and municipal owned properties. As we have discussed, the easement acquisition process can be rather lengthy and requires the coordination of multiple third parties. The following is a brief summary of our understanding of the work and expected services for this project:

- ERM's services related to the above project understanding is expected to include the following:
  - Project Introductory Meeting
  - Assistance in determining the formula for compensation (if required)
  - Potential interaction with Charles Town's legal council
  - Creation of Deeds of Easement, if requested
  - Creation of Offer Packages
  - Coordination & Communication with Charles Town Utilities Staff (phone and email)
  - Easement negotiation (Offer Package delivery & 1 subsequent meeting)
  - Side Agreement Drafting (will require approval as to form by Charles Town Utilities legal counsel) (if required)
  - Easement execution by Owner (including notary services)

PROPERTY RIGHTS NEGOTIATION

Based on the above assumptions and the information we have received on the overall scope of work and timeline to complete, we currently estimate that the delivery of the offers to property owners and then 1 subsequent meeting to address questions and request signature on the Deed of Easement can be completed for this project in approximately 12 hours or less for the residential owned, 17 hours or less for the commercial owned, and 22 or less for Local Government, Utility or Conservancy owned properties. ERM has assumed that Charles Town Utilities will acquire the fee simple property for the Pump Station and the subsequent easement on Fairfax Crossing Real Estate's properties.

Therefore, the acquisition or owner impasse on all of the necessary property rights required for the project can be accomplished in an estimated **498** hours or less, and includes our discount for property owners (3) that possess multiple parcels (3), based on the following calculation:

23 Residential Property Owners:	23 x 12 Hrs. per property= 276 Hrs.
10 Commercial Property Owners:	10 x 15 Hrs. per property= 150 Hrs.
4 Municipality, Conservancy or Telco:	4 x 18 Hrs. per property= 72 Hrs.

OFFER PACKAGES

The management and creation of Offer Packages for the 40 properties can be completed in an estimated 3 hours per property. This deliverable includes document creation, compensation payments, offer package folders, and setting up ERM's project tracking mechanisms. Therefore, the creation of offer packages for the project can be accomplished in an estimated **120** hours or less, based on the following calculation:

40 Offer Packages:	40 x 3 Hrs. per Package= 120 Hrs.

TITLE MANAGEMENT

The management and review of title reports for the properties can be accomplished in **1** hours per property. We assume a report for the fee simple property purchase will be required. Additional title reports will be ordered based on necessity and assumed to be outside of this initial scope:

1 Title Report Managements:	1 x 1 Hr. per Report= 1 Hrs.

ERM services are billed on ¼ hr. intervals, on an as needed basis, with the fully burdened agreed upon rate for Charles Town Utilities of $165 per hour. Note that the above proposal is based on an average number of hours for similar work on other area projects. Additionally, in the event of particularly difficult negotiations, a change in project scope, or if properties move towards condemnation or similar proceedings, this is an estimate that may be exceeded. (We would jointly discuss such changes and any resulting increases.)

We assume that Charles Town Utilities will be responsible for all required easement and land acquisition payments negotiated with the property owners. Charles Town Utilities will also be responsible for paying for all required appraisals, coordinated and managed by ERM, if required.

We will carefully coordinate with Charles Town Utilities designated legal counsel and tailor documents for individual property owners; however, legal services are not included in this proposal. Should any of the properties go to condemnation, a separate proposal would be created for ERM's eminent domain services which would include appraisal creation for the bona fide offer.

In summary, we have presented the following proposal elements for your consideration:

• Easement Negotiations (2 Meetings)	$	82,170 (NTE)
• Offer Package Creation	$	19,800
• Title Management	$	165
TOTAL ESTIMATE THIS PROJECT	**$**	**102,135**

Assumes hourly services for easement acquisition negotiations.
Title Reports will be billed as a pass-through and will be billed outside of this proposal.
Printing & Mailing will be treated as a pass-through and billed outside of this proposal.
Travel will be billed at the IRS rate, per mile.

ERM looks forward to speaking with you further about your project and how we can make it an unqualified success.

Sincerely,

Craig Anderson
President

EXAMPLE Negotiation Hourly Breakdown

Description	Total Hours
Residential Property	**15.0**
Site Plan Review, Project Tracker, Property Folders, Documents	3.0
Site Visit & Locate Owner, Find Contact Data, First Contact	1.5
Property Owner Meeting	3.0
Create Strategy based on Owners Concerns	1.0
Calls/emails with Client	1.0
Calls/emails with Engineering Firm	.50
Calls/emails with Owner	1.0
Contract Ratification or Impasse	3.0
Detailed Property Owner Interactions	1.0
Printing, Mailing, Mileage	TBD
*Condemnation support is an extra cost if required	

ALTERNATE MAINLINE SEWAGE COLLECTION SYSTEM AGREEMENT

THIS AGREEMENT (the "Agreement") is made and effective this 18th day of January, 2023, by and between the CITY OF CHARLES TOWN, by and through the CHARLES TOWN UTILITY BOARD, (hereafter, "CTUB") and DR. HORTON (hereafter " the DEVELOPER").

WHEREAS, CTUB has been authorized by City Ordinance Chapter 13, Article II to develop sewage collection and treatment facilities throughout its service area, together with vicinity residents and businesses, with public sewer service; and

WHEREAS, CTUB wishes to make public sewage collection and treatment facilities available to the greatest number of residential, commercial and industrial customers located within the service area as expeditiously as possible; and,

WHEREAS, the DEVELOPER is planning to develop certain lands known as Stonecrest Subdivision (the "Development") located within CTUB's service territory within Jefferson County for residential development; and,

WHEREAS, the Development will be located along Flowing Springs Road approximately 3,000 feet north of the intersection with Old Country Club Road; and

WHEREAS, the DEVELOPER intends to construct up to 320 single-family detached homes; and

WHEREAS, the DEVELOPER intends to construct on-site sewage collection systems with the development and connecting to the Aspen Green Sewage collection system including approximately 15,861 lineal feet of onsite "8" inch sewer main to the point of connection to the existing CTUB sewer system, along with associated the associated service laterals and manholes (the "Sewage Collection Systems") to service the Residential Lots, which will connect to the sewage collection system of the CTUB; and

WHEREAS, it is in the best interest of the future users of the Development to have public sewer collection facilities available: and

WHEREAS, THE Developer has read Rule 7.4 of the Commission's Rules for the Government of Sewer Utilities that became effective on September 14, 2021, in its entirety, understands the Rule and chooses to enter into this alternate main line extension agreement.

NOW, THEREFORE, for and in consideration of the covenants and agreements set forth herein, and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, the BOARD and the DEVELOPER agree:

ARTICLE I

DESIGN AND REGULATORY APPROVAL

Section 1.01. The DEVELOPER hereby agrees to employ qualified professional engineers to design the on-site and off-site sewage collection system for the DEVELOPER'S project, as described in general herein. All designs will be developed at the DEVELOPER'S expense and comply with CTUB'S Sewer System Specifications. All designs shall be reviewed and approved by CTUB's engineer prior to submission to the West Virginia Bureau for Public Health and the West Virginia Division of Environmental Protection for permits to construct and prior to the commencement of construction. Neither CTUB or its engineers or agents shall bear any financial or any other responsibility for the design and construction of the Sewage Collection System.

Section 1.02. The DEVELOPER shall, at their own expense, submit the plans and specifications to the appropriate State, Federal, and local agencies for their approval. The Developer will provide plans to the Staff of the Public Service Commission if required. Any changes in the plans and specifications required by the governmental agencies shall be subject to the approval of CTUB.

ARTICLE II

CONSTRUCTION AND INSPECTION

Section 2.01. The DEVELOPER will construct the entire sewer pumping and collection system under this Agreement, including but not limited to, all main lines, service lines, pumping facilities, or other necessary appurtenances, for all residential, commercial, or other customers, either proposed or existing, on-site and off-site as approved by CTUB on the Development's Preliminary Plat at the DEVELOPER'S expense. All construction shall be done in accordance with the approved plans and specifications for the Development and CTUB's current specifications. The DEVELOPER shall obtain, at their own expense, with the cooperation and support of CTUB, all necessary permits, authorizations and approvals of State, Federal, and local agencies during the construction phase and shall make such changes as are required by said agencies during this phase and such changes shall not be subject to further approval by CTUB.

Section 2.02. The DEVELOPER shall, with the cooperation and support of CTUB, obtain all necessary rights-of-way, real property, easements and take all other such actions, including but not limited to, legal action, as are necessary to complete the Sewer Collection System, at the DEVELOPER'S own expense. CTUB shall, at the request of the DEVELOPER, take such actions

as are permitted by law to aid in obtaining the necessary rights of way, real property or easements on land not owned by the DEVELOPER, including, but not limited to, legal actions. The cost of said actions requested by the DEVELOPER, including amounts paid to property owners for the required real estate and easements as well as all litigation costs and taken by CTUB shall be borne by the DEVELOPER.

Section 2.03. Prior to the substantial completion of the construction of the Sewage Collection System or phase thereof, CTUB shall have the right to inspect and approve the system of phase thereof to ensure that: (1) sewage will be satisfactorily transported from the Development in accordance with the terms of this Agreement and all applicable statutes, rules, and regulations legally applicable to CTUB; (2) infiltration will be minimized; (3) illegal and improper sources of inflow are eliminated; and (4) the system was constructed using sound engineering and construction standards, and using materials in compliance with CTUB's standards and specifications.

Section 2.04. CTUB shall have the right to inspect all work of the DEVELOPER, and its contractors, during all phases of construction to insure adequate installation of the system. The DEVELOPER shall pay CTUB for its construction inspection services. All fees shall be paid by the DEVELOPER to CTUB within fifteen (15) days of the date of the preconstruction meeting. Inspection services shall be no more than $1,500.00 per week for full-time inspection services for water and sewer installation.

Section 2.05. At the conclusion of construction, The DEVELOPER shall provide to CTUB a complete set of reproducible copies of the record drawings of the completed construction for the mainline extension, signed and sealed by the engineer who prepared the plans. Also, the DEVELOPER shall provide CTUB with executed easements for all sewer mains. SEWER SERVICE FROM THE MAINLINE EXTENSION COVERED BY THIS AGREEMENT WILL NOT BE GRANTED UNTIL THE "RECORD DRAWINGS" AND THE EXECUTED EASEMENTS ARE RECEIVED BY CTUB.

Section 2.06. At all times during the construction of said sewer system, the DEVELOPER shall maintain sole ownership of said sewer system.

Section 2.07. The DEVELOPER shall complete the mainline extension covered by this Agreement within five (5) years from the date of this Agreement. Failure to do so may make this Agreement null and void as to any uncompleted portions of the mainline extension. CTUB reserves the right to require the DEVELOPER to enter into a new agreement, have a design review and secure new permitting for the completion of the Project if sufficient proof can be demonstrated that rules,

regulations or surrounding conditions have changed during the five (5) year time frame.

ARTICLE III

TRANSFER OF OWNERSHIP

Section 3.01. Upon completion of the construction of the Sewage Collection System, or phase thereof, or parts of phases thereof at the discretion of CTUB, the DEVELOPER shall, with the cooperation and support of CTUB, obtain such State, Federal, and local certifications, authorizations, or approvals as required, at the DEVELOPER'S expense. After said certifications, authorizations or approvals are obtained, and the Sewage Collection System or phase thereof is completed in all respects, the DEVELOPER shall provide CTUB written notice of said completion. As used in this and subsequent Sections, "completed in all respects" includes, but is not limited to: (i) the system or phase thereof being physically complete; (ii) all testing required in the CTUB Sewer Specifications will be performed by the certifying engineer; (iii) all electrical and mechanical systems inspected and certified by approved factory authorized representatives of the manufacturers; (iv) all systems or phase thereof having passed component validation, start-up and demonstration periods and training performed; (v) all engineers, material men, contractors and subcontractors of the DEVELOPER being paid for their work on said system or phase thereof; (vi) all rights of way, real property and easements required for the operation of the Sewage Collection System or phase thereof are acquired; (vii) all legal disputes regarding the Sewerage Collection System being materially resolved; and (viii) no outstanding liens on the Sewage Collection System or phase thereof existing.

Section 3.02. Upon receipt of the written notice described in Section 3.01, CTUB shall have thirty (30) days to inspect said Sewage Collection System or phase thereof and run such tests, at CTUB's sole expense, as CTUB feels are appropriate and necessary to determine that the Sewage Collection System or phase thereof has been properly designed and constructed using sound engineering and construction standards. Within the thirty (30) day period, CTUB shall provide the DEVELOPER, in writing, a list of repairs which CTUB reasonably believes are required to cause the Sewage Collection System or phase thereof to comply with the plans and specifications previously approved by CTUB, as may have been modified by the changes required by any applicable State or Federal agency or other City department, and a list of other actions, which the DEVELOPER must take so that the system or phase thereof is completed in all respects in accordance with the approved plans. The DEVELOPER, at the DEVELOPER's own expense, shall make said reasonable repairs and once said repairs have been made, the DEVELOPER will provide CTUB with an additional written notice as set forth in Section 3.01 and CTUB shall have

the same rights as it had upon receipt of the initial notice. The DEVELOPER shall not connect any businesses or structures to the sewer system or phase thereof until it has been fully tested by the engineer and CTUB and all repairs required by CTUB have been made. Notwithstanding the foregoing, if CTUB does not inspect the Sewage Collection System or phase thereof within thirty (30) days after receipt of the written notice described in Section 3.01., CTUB's right to such inspection shall terminate.

Section 3.03. If after receipt of the notice set forth in Section 3.01, CTUB determines that the Sewage Collection System or phase thereof is completed in all respects, the DEVELOPER shall deliver, and CTUB shall accept, ownership of the Sewage Collection System or phase thereof necessary to connect to the sewage collection and pumping system built as part of the Development, including rights-of-way, and all real property and easements necessary for the ownership, operation and maintenance of the Sewage Collection System or phase thereof and any required additional off-site sewage collection and pumping system. The transfer of ownership shall occur no late than fifteen (15) days after the expiration of the CTUB's right of inspection and testing, set forth in Section 3.02. At that time of the transfer of ownership of the Sewage Collection System or phase thereof to CTUB, to the extent that any of the DEVELOPER'S funds are bonded or subject to a letter of credit tied to the Sewage Collection System or phase thereof, DEVELOPER shall retain ownership in such funds and such funds shall be automatically returned to the DEVELOPER upon the termination of any such bond or letter of credit.

Section 3.04. Ownership of the Sewage Collection System or phase thereof and any required, additional off-site collection and pumping systems shall be transferred by the DEVELPER to CTUB prior to connection to the sewage facilities built by the DEVELOPER as part of the Development.

Section 3.05. Prior to the transfer of ownership of the Sewage Collection System or phase thereof to CTUB, when the DEVELOPER applies for a building permit to construct a residential, commercial or industrial building in the Development, the DEVELOPER shall pay to CTUB (i) a non-refundable tap and inspection fee pursuant to approved CTUB tariff and (ii) a non-refundable capacity improvement fee pursuant to the approved CTUB tariff. Payments shall be made on the same date the DEVELOPER applies for a building permit to construct the residential, commercial or industrial building in the Development, which will result in said additional Customer. Notwithstanding the foregoing, CTUB shall only be entitled to retain a DEVELOPER tap or connection fee if CTUB, using its own resources, actually installs or inspects the tap and/or connection line and physically connects or inspects the connection to the customer's service. Once

CTUB collects a tap or connection fee in accordance with the terms of this Agreement, CTUB shall not be permitted to collect from the customer any additional tap or service connection fee. CTUB shall only be permitted to collect one tap or connection fee per service connection in accordance with its Tariff on file with the PSC. CTUB's right to either retain the DEVELOPER's tap or connection fee deposit or to assess a tap or connection fee from a customer is contingent upon CTUB installing the tap and/or connection line, which physically connects a customer's service to the DEVELOPER's collection system.

ARTICLE IV

DEVELOPER REIMBURSEMENT

Section 4.01. CTUB will not reimburse the Developer for the installation, cost or any other costs associated with the installation and construction of the Sewage Collection System. Developer expressly waives any right to reimbursement under the PSC Rules and Regulations for the Government of Sewer Utilities, 150 CSR 5, Rule 7.4, a copy of which is attached hereto as Exhibit A, and made a part hereof, and understand that CTUB's extension of service outlined in the Agreement herein shall be construed as an exemption to Rule 7.4. The Developer will collect reimbursement through appropriate pricing of real estate within its Development.

Section 4.02. Not later than fifteen (15) business days following the time of the transfer of ownership of the Sewage Collection System or phase thereof as provided in Article III, Developer shall provide CTUB with an itemized accounting of the costs of the Sewage Collection System or phase thereof. The costs shall include, but not limited to, labor, materials, engineering fees and costs of permits. CTUB shall have a right to review copies of the records of Developer relating to the development of the Sewage Collection System and Developer shall, at the request of CTUB, provide CTUB with copies of all invoices relating to the development of the Sewage Collection System or phase thereof. CTUB shall verify the total cost of the Sewage Collection System or phase thereof and shall give notice in writing to Developer of CTUB's calculation of the total cost of the Sewage Collection System or phase thereof (the "Project Cost").

ARTICLE V

CONDITIONS PRECEDENT

Section 5.01. This Agreement and the respective obligations of the parties are expressly conditioned upon the decision by the DEVELOPER, such decision to be made in the sole and absolute discretion of the DEVELOPER, to commence construction of the Development and upon the written approval of this Agreement by the PSC.

Section 5.02. The DEVELOPER waives the right to receive an estimate of the cost of the extension.

Section 5.03. As a condition to obtaining a main extension, the DEVELOPER shall grant CTUB the necessary easements which would allow CTUB to make future extensions into unserved areas. Such future extensions shall not adversely affect the intended use of the Developer's Property nor shall Developer incur any additional cost for granting of said easement or construction within the easement(s).The granting of the necessary easements by the Developer to CTUB shall be made without CTUB being required to pay additional consideration for the additional easements to the DEVELOPER, but shall be in such locations as shown on the approved Preliminary Plat for the Country Club Commons Development. CTUB has the right to further extend mains from and beyond the terminus of the mains constructed pursuant to this Agreement. In such an event, the DEVELOPER shall not be entitled to any refund for the connection of customers to such extension.

ARTICLE VI

SUBSEQUENT CONNECTIONS

Section 6.01. The DEVELOPER agrees that after the transfer of the ownership of the Sewage Collection System, or any portion thereof, to CTUB, the DEVELOPER shall be assessed, to the extent DEVELOPER owns the property for which a connection is requested, for each new connection upon the issuance of a sewer availability letter (i) a non-refundable tap and inspection fee pursuant to approved CTUB tariff and (ii) a non-refundable capacity improvement fee pursuant to the approved CTUB tariff. Payments shall be made on the same date the DEVELOPER applies for a building permit to construct the residential, commercial or industrial building in the Development, which will result in said additional Customer. Notwithstanding the foregoing, CTUB shall only be entitled to retain a DEVELOPER tap or connection fee if CTUB, using its own resources, actually installs or inspects the tap and/or connection line and physically connects or inspects the connection to the customer's service. Once CTUB collects a tap or connection fee in accordance with the terms of this Agreement, CTUB shall not be permitted to collect from the customer any additional tap or service connection fee. CTUB shall only be permitted to collect one tap or connection fee per service connection in accordance with its Tariff on file with the PSC. CTUB's right to either retain DEVELOPER's tap or connection fee deposit or to assess a tap or connection fee from a customer is contingent upon CTUB installing the tap and/or connection line, which physically connects a customer's service to the DEVELOPER's collection system.

Section 6.02. The DEVELOPER hereby agrees that in the event that the DEVELOPER transfers, prior to completion, any portion of DEVELOPER'S land in the Development to any

individual, corporation or other entity who will continue to engage in development of said land as contemplated by this Agreement, resulting in additional customers for CTUB, the DEVELOPER shall require, as a term of said transfer, that said individual, corporation or other entity assume the obligations of this Agreement.

ARTICLE VII

REPRESENTATIONS AND WARRANTIES

Section 7.01. The parties represent and warrant that the execution, delivery and performance of this agreement by them has been duly authorized and this agreement constitutes a valid and binding obligation of the parties in force full and accordance with its terms.

Section 7.02. The DEVELOPER represents and warrants that the Sewage Collection System or phase thereof will be designed and constructed in a proper workmanlike manner using sound principles of engineering and construction. The DEVELOPER hereby warrants DEVELOPER'S work on the Sewage Collection System's or phase thereof electrical and mechanical components, pump stations and treatment facilities for one (1) year from the date of the transfer of ownership of the Sewage Collection System or phase thereof to CTUB and, during such period, will make such repairs at the DEVELOPER'S expense, as are needed to maintain the Sewage Collection System or phase thereof in a proper operating condition in accordance with the approved plans therefore. CTUB will be responsible for reasonable maintenance of the system according to sound operating procedures and manufacturer's recommendations. The DEVELOPER will not be responsible for repairs due to CTUB failing to reasonably maintain the system.

Section 7.03. Upon notice from CTUB that all construction and testing requirements have been met, DEVELOPER shall post a one (1) year warranty bond in an amount sufficient to replace the system or phase thereof constructed by the DEVELOPER. The amount of the bond shall be 100-percent of the cost of the improvements to be bonded at that time, and shall be for a period of 365 days that will begin on the date ownership of the On-Site and Off-Site Sewage Collection System or phase thereof is transferred to CTUB, At the conclusion of such one (1) year period, any warranty bond with respect to the Sewage Collection System or phase thereof shall automatically terminate and all bonded funds shall automatically be returned to the DEVELOPER.

ARTICLE VIII
MISCELLANEOUS PROVISIONS

Section 8.01. This Agreement shall in no manner alter or affect presently existing rates, charges, minimums or tariffs of CTUB and the same rates, fees, charges, minimums and tariffs shall apply uniformly to all customers of CTUB. This Agreement shall at all times be subordinate to any present or future trust indentures or other similar liens on the assets of CTUB, and the parties hereto recognize the priority of any such obligations and upon occurrence of default or assumption of operation and control by the trustee or holders of the bonds of CTUB this Agreement shall be subordinate to such obligations.

Section 8.02. Nothing in this Agreement shall be construed to make CTUB or its engineer and agents liable or responsible for any obligations of the DEVELOPER.

Section 8.03. The DEVELOPER hereby agrees to save and indemnify and keep harmless CTUB, its engineer and agents against all liability claims and judgments or demands for damages arising from accidents to third persons occurring prior to date of the transfer of the ownership of the Sewage Collection System or phase thereof to CTUB, or to property owned by third persons occasioned by the DEVELOPER, its agents, employees, contractors and subcontractors, and against all claims for damages arising from accidents to the DEVELOPER, its agents, employees, contractors and sub-contractors, occasioned by third persons occurring prior to the date of the transfer of the Sewage Collection System to CTUB, except for those legally attributable to CTUB, its engineer or agents, other than the DEVELOPER, or employees of CTUB. The DEVELOPER will defend any and all suits that may be brought against CTUB on account of any such accidents (except those legally attributable to CTUB, its engineer or agents, other than Developer, or employees of CTUB) and will make good to, and reimburse, CTUB for any reasonable, out-of-pocket expenditures (including, but not limited to reasonable legal fees and expenses) that CTUB may make by reason of such accidents.

Section 8.04. The DEVELOPER hereby agrees to save and indemnify and keep harmless CTUB, its engineer and agents from all claims, demands, causes of action, or suits of whatever nature arising out of the labor and materials used by the DEVELOPER and their contractors or sub-contractors, and from all laborers', materialmen's and mechanics' liens upon the Sewage Collection System or upon the property upon which the Sewage Collection System is located arising out of the labor and materials used by the DEVELOPER and its contractors or sub-contractors, and the DEVELOPER shall keep the Sewage Collection System or phase thereof and said property free and

clear of all liens, claims and encumbrances until the time of the transfer of ownership of the Sewage Collection System or phase thereof to CTUB.

Section 8.05. Upon transfer of the ownership of the Sewage Collection System or phase thereof to CTUB, nothing in this Agreement shall be construed to provide the DEVELOPER with any ownership or other interest in the Sewage Collection System or phase thereof which will become the exclusive property of CTUB, or with a right to be reimbursed by CTUB for any and all construction cost, except as provided in this Agreement.

Section 8.06. The DEVELOPER hereby agrees to not pursue any lawsuit, cause of action, or claim of any kind against CTUB regarding insufficient sewage treatment capacity.

Section 8.07. This Agreement constitutes the entire Agreement between CTUB and the DEVELOPER with respect to the matters addressed and may be amended only in a subsequent writing executed by both parties.

Section 8.08. This Agreement may not be assigned by CTUB without the prior written consent of the other party. The DEVELOPER may assign this Agreement without the consent of CTUB if the DEVELOPER sells all or any portion of the Development.

Section 8.09. The article and section headings in this Agreement are merely for the convenient reference of the parties and shall not affect the meaning or interpretation of this Agreement.

CHARLES TOWN UTILITY BOARD

By: John C Benedict

Its: Chair

ATTEST:

By:

Its: Division President

ATTEST:

EXHIBIT A

PUBLIC SERVICE COMMISSION RULE 7.4

Public Service Commission of West Virginia Rules and Regulations for the Government of Sewer Utilities, 150CSR7, Rule 7.4, Extension of Mains

original customer's service pipe crossing the subdivided property that will be occupied by a new customer, the original customer and new customer must have separate service pipes. The original customer must obtain a right-of-way for the original customer's service pipe on subdivided sections of property before title of such section passes to a new owner.

7.3.10. The customer's service pipe and all connections and fixtures attached thereto shall be subject to the inspection of the utility before use, and all premises, including any and all fixtures within the said premises, shall at all reasonable hours be subject to inspection by a duly authorized employee of the utility.

7.3.11. The utility shall make changes and bear the full costs of changes in the customer's service pipe required due to changes in grade, relocation of mains, and other causes not related to the customer. The customer shall bear the full costs of changes in service pipe or meter location desired by the customer for the customer's convenience.

7.3.12. The customer shall not attach any fixtures to, or make any branches in, the customer service pipe between the point of service and the premises served. Violation of this rule may result in termination of service pursuant to these rules.

7.3.13. The connection of surface drains to the sanitary system is prohibited. As a means to deter prohibited connections where surface or ground water is introduced into the sanitary system, the utility may add a surcharge to the customer's sewer bill where evidence of a violation exists. The surcharge shall be authorized by separate schedule to the utility's sewer tariff filed pursuant to the *Rules for the Construction and Filing of Tariffs*, 150CSR2, but the utility need not file revenue, expense, or other financial data unless otherwise ordered by the Commission. The charge for roof drains, downspouts, storm sewers or similar facilities connected to the sanitary sewer system will be calculated by the formula or rate clearly stated in the tariff, and will not be cumulative to any metered rate for sewer service. The tariff should further provide that the surcharge will not be imposed unless and until the customer is notified by certified mail, return receipt requested, or by hand delivery, that it has been established by smoke testing, dye testing, or on-site inspection that rain or surface water is being introduced into the sanitary sewer, and that the customer has thirty (30) days to divert that water from the sanitary sewer.

7.4. Extension of mains to serve new customers.

7.4.1. A sewer utility, whether publicly or privately owned, is under a public service obligation to extend its mains, and its plant and facilities to serve new customers within its service area who may apply for service.

7.4.2. The utility shall make extensions in all cases in which the public convenience and necessity require the service, construction problems are not unusual or burdensome, and the extensions appear to be economically feasible.

7.4.3. For any proposed extension of mains, a reasonable relationship should exist between the per customer investment to serve new customers and the per customer investment to serve old customers.

7.4.4. A utility shall make every effort to install its main line in the public road right-of-way or in a utility right-of-way abutting the public road right-of-way.

7.4.5. Extension for general sewer service.

7.4.5.a. The utility will respond to all inquiries regarding new sewer service, whether oral or

written, by explaining all available options for obtaining service under these rules.

7.4.5.b. The utility will, upon written request for service in the form of Sewer Form No. 4, by a prospective customer or group of prospective customers located in the same neighborhood, determine the necessary size of main required to give service and make an estimate of the cost of providing the requested service, using the form of Sewer Form No. 5, including pipe, valves, manholes, fittings, necessary materials, permits, labor costs incurred by the utility when the utility externally contracts for the construction of the extension, or internal labor costs, provided such internal or external costs are not recovered in existing rates, and other applicable related costs. When a road crossing(s) is (are) necessary to serve the customer(s) requesting service, the cost estimate shall not include costs attributable to extending the main across the first road (closest to the already existing main), but shall include the costs of installing the main across a second and any subsequent road(s). The utility will provide the written estimate calculated using Sewer Form No. 5 to the customer in the form of Sewer Form No. 6, no more than forty-five (45) days from the receipt by the utility of the written request for service. The written estimate shall include an estimated construction start date and an estimated time of construction. If the prospective customer believes that any part of the estimate is unreasonable, the customer is free to pursue an informal request for assistance from the Commission staff or to file a complaint with the Commission. Further, the utility and the customer shall execute a Main Line Extension Agreement. Commission Staff may be consulted to provide assistance and sample forms. The agreement must include as an attachment a copy of this extension rule. The utility shall keep an executed copy of the agreement for at least six (6) years. The length of the extension required shall be that length required to extend from the new proposed service area to the nearest point of connection to the utility system having sufficient excess capacity to provide service at maximum demand.

7.4.5.c. Whenever the utility is required to extend service from an existing main to property that does not immediately abut the utility's right-of-way or the public road that contains the utility main, the extension shall be considered a main extension and the cost responsibility shall be determined under Sewer Rule 7.4.5.

7.4.5.d. Where the cost of the extension does not exceed the estimated total net revenue, as calculated below, from prospective customers whose service pipes will immediately be connected directly to the extension and from whom the utility has received applications for service upon forms provided by the utility for this purpose, the utility will install, at its own cost and expense, the necessary extension; provided, that the patronage or demand will be of such permanency as to warrant the capital expenditure involved.

7.4.5.d.1. Net annual revenue shall be gross annual revenue minus an amount equal to the excess usage leak adjustment rate approved for the utility times the applicant's usage used for the purposes of this rule, with this difference further reduced for any revenue based taxes.

7.4.5.d.2. The utility will base revenue on the average usage by customer class at the time of the extension, unless circumstances of the applicant show this would result in significant error. For non-residential units, the utility will base annual revenue on typical consumption for comparable units published by the American Water Works Association.

7.4.5.d.3. Estimated total net revenue for private, for profit, utilities will be calculated as six (6) times estimated net annual revenue. Each such utility shall file for a utility-specific line extension multiplier within twelve (12) months of the effective date of these rules.

7.4.5.d.4. The utility-specific line extension multiplier for private, for profit, utilities shall be based on one (1) divided by the utility's net fixed charge rate. The net fixed charge rate shall

equal a function of the utility's weighted cost of capital, applicable income tax rates, and the Commission approved depreciation accrual rate.

7.4.5.d.5. Estimated total net revenue for associations, municipal, and public service district utilities will be calculated as five (5) times estimated net annual revenue. If the Commission approved excess leak adjustment for the utility fails to include all of the incremental costs of serving a new customer that should properly be netted out from the total revenues of the utility, the utility may apply to the Commission for a determination of the proper amount to be deducted from gross revenues to arrive at an appropriate determination of net revenue.

7.4.6. Extensions beyond the limit of utility-financed extensions of general sewer service.

7.4.6.a. If the utility-estimated cost of the proposed extension required in order to furnish general sewer service exceeds the utility's estimate of total net revenue as determined by Sewer Rule 7.4.5.d., the utility will make the extension if the applicant or the applicant's authorized agent contracts for the extension and deposits in advance with the utility the estimated cost of the extension over and above the limit of the utility-funded portion of the extension. The utility shall not pay nor be liable for any interest on such cash deposits. The utility shall make the extension after receiving the cash deposit. The utility shall, for each bona fide new customer who, within a period of ten (10) years from the making of such extension, directly connects to the extension between its original beginning and original terminus refund to the original depositor(s), an amount equal to the estimated total net revenue of the new customer as determined by Sewer Rule 7.4.5.d., but in no event shall the aggregate refund made to the depositors exceed the original deposit. Provided, however, that associations, public service districts and municipal sewer utilities may elect to refund the estimated amount over a period of five (5) years making payments no less frequently than every six (6) months.

7.4.7. Alternate Depositor-Financed Extension Plan.

7.4.7.a. Qualifying utilities. -- The above requirements notwithstanding, the utility may decline to finance the portion of a requested extension that would be utility-funded, if it can demonstrate that it has no prospect of any reasonable internal or external financing through commercial loans, grants, or through an installment arrangement with an entity installing the extension or providing the necessary materials.

7.4.7.a.1. If the utility declines to finance the portion of a requested extension that would be the financial responsibility of the utility, the utility shall file for a waiver of the extension rule within sixty (60) days of the written request.

7.4.7.a.2. Before filing for a waiver, the utility must first estimate the extension costs.

7.4.7.a.3. A request for a waiver by a utility shall be accompanied by supporting documentation justifying its request, including cost estimates, documentation of inability to finance, internally or externally, through commercial loans, grants or an installment arrangement with an entity installing the extension or providing the necessary materials.

7.4.7.a.4. If the Commission finds that the utility has reasonably declined to finance the portion of the requested extension that would otherwise be utility-funded, the Commission shall authorize the use of the alternate depositor-financed extension plan as described below.

7.4.7.b. Description of alternate depositor-financed extension plan. -- Under the alternate depositor-financed extension plan, the utility shall make the extension after:

7.4.7.b.1. receiving a cash deposit equal to the full amount of the extension cost; and

7.4.7.b.2. agreeing to give the depositor(s), who is a customer, a monthly bill credit totaling one hundred percent (100%) of the actual net bill(s) from the date service is initiated and until the total credits given equal the estimated total net revenue as defined in Sewer Rule 7.4.5.d.; and

7.4.7.b.3. agreeing to refund to the original depositor(s) an amount equal to estimated total net revenue as defined in Sewer Rule 7.4.5.d. of each bona fide customer, other than the depositor(s), who, within a period of ten (10) years from the construction of the extension, directly connects to the extension between its original beginning and the original terminus. The refund may be spread out over a five (5) year period with the utility making payments no less frequently than every six (6) months. The refunds shall continue until the total refunds given equal the estimated total net revenue as defined in Sewer Rule 7.4.5.d.

7.4.7.c. In no event shall the total refund made to the depositor(s) under Sewer Rule 7.4.7.b.3. exceed the original deposit of the depositor(s).

7.4.7.d. The utility shall not pay nor be liable for any interest on the cash deposits associated with line extensions.

7.4.8. General provisions.

7.4.8.a. If the actual cost of the extension is less than the estimated cost, the utility will refund the difference as soon as the actual cost is ascertained, but in no event later than ninety (90) days after completion of construction of the extension. When the actual cost of the extension exceeds the estimated cost, the utility will bill the depositor for the difference between the estimated and the actual cost. The utility will not pay interest on the applicant's payment or on any balance that is refunded.

7.4.8.b. In estimating the cost of an extension, the utility will base the estimate on the diameter of the pipe to be used; provided, that the estimated cost to the customer or customers shall not be based on a pipe diameter greater than the diameter of the main from which the extension is to be made, unless actual use estimated for the proposed customer or customers required a larger pipe.

7.4.8.c. Extensions made under this rule shall be and remain the property of the utility.

7.4.8.d. The utility reserves the right to further extend its sewer mains from and beyond the extension made under this rule, and the depositor or the depositor's agent paying for an extension shall not be entitled to any refund for customers attaching to such further extension or branch mains so installed.

7.4.8.e. In determining the length of main extensions or of sewer line to be installed in an urban area when land is subdivided in lots, the main, or sewer line (if installed by an entity other than a utility), shall be extended to fully cover the frontage of the property and if the last lot to be served is a corner lot, the terminal point of the extension made hereunder shall be located so that the sewer line ties in with the intersecting street. If there is no main located in the intersecting street, the terminal point of the extension shall be located at the nearest street line of the intersecting street. In rural areas or open land areas, the extension required will be that length necessary to adequately serve the applicant.

7.4.8.f. Before sewer lines are laid in any new subdivision, the road surface shall be brought to the established sub-grade as determined by the agency having jurisdiction.

7.4.8.g. This rule shall not be construed as prohibiting the utility from entering into an agreement with a customer that complies with the Commission approved checklist attached hereto as Sewer Form No. 7, in providing an alternate plan for a main extension. Commission Staff may be consulted to provide assistance and sample forms. In providing an alternate plan for main extensions a utility may not discriminate between customers whose service requirements are similar. The agreement shall be filed with and approved by the Commission prior to the implementation or execution of the agreement by any of the parties. The agreement shall include the name, address and phone number of the parties to the agreement. The agreement shall also include a provision explaining why the utility is not funding the extension. The agreement must attach a copy of Sewer Rule 7.4., and a statement signed by the prospective customer that he has reviewed and understands the provisions of Sewer Rule 7.4.6. which entitle a customer to refunds and that he knowingly waives such rights, if applicable. Failure to obtain Commission approval will result in the loss of the right to obtain reimbursement from the utility. If an entity other than the utility constructs the extension, upon completion of construction and proper utility inspection of the extension, the utility shall initiate service only after proper transfer of title to all facilities including property, plant and rights-of-way incidental to the furnishing of utility service.

7.4.8.h. Contract for service. -- A utility is not required to make utility-funded extensions or refunds as described in this rule unless those to be served by such extensions shall guarantee to the utility that they will take the service at the premises within thirty (30) days after service is available or as otherwise mutually agreed in a user's agreement.

7.4.8.i. Construction conditions. -- A utility will undertake construction of line extensions, as provided in this rule, promptly after all applications are completed, necessary right-of-way agreements or rights of entry are delivered to the utility, and all prospective customers have signed contracts.

7.4.8.j. Right-of-Way.

7.4.8.j.1. If construction of an extension involves the acquisition of a private right-of-way, then the prospective customer shall attempt to secure the right-of-way and deliver it to the utility free of cost before construction of the extension begins.

7.4.8.j.2. If, however, it is not reasonably possible for the prospective customer or customers to secure the right-of-way, and the construction of an extension involves the utility's incurring expense for right-of-way easements, either by purchase or condemnation, the utility will add those costs to the total cost of the extension.

7.4.8.j.3. As a condition to obtaining a main extension, property owner or developer must grant the utility the necessary easements which would allow the utility to make future extensions into unserved areas. The property owner or developer will grant the necessary easements without requiring the utility to pay additional consideration for the additional easements to the property owner or developer. If the property owner or developer is unwilling to grant the additional easements, the utility shall not be required to extend its main to serve the property owner or developer.

7.4.8.k. Upon the proper filing of a Tariff Rule 42A, 42R, 42T, 19A, or 19R rate case or a certificate case filed pursuant to W. Va. Code §24-2-11 by the utility, the utility may seek to include in its tariff a Capacity Improvement Fee, Capacity Assurance Fee or such other fee or charge designed to raise capital to cover the cost of future capacity expansion to be assessed against customers or entities creating those costs.

7.4.9. Community infrastructure investment agreements with municipal utilities and public

service districts.

7.4.9.a Municipal utilities and public service districts may enter into "community infrastructure investment agreements" in accordance with the provisions of W. Va. Code §22-28-1 et seq.

7.4.9.b. A utility that has entered into "community infrastructure investment agreements" pursuant to W. Va. Code §22-28-1 et seq. shall maintain separate books and records for the project areas involved in the agreements. For purposes of this section, the project areas for which separate books and records are required include plant upgrades and stand alone systems.

7.4.9.c. A utility that has entered into "community infrastructure investment agreements" pursuant to W. Va. Code §22-28-1 et seq. shall file (i) a copy of the certificate of appropriateness, (ii) a copy of the community infrastructure investment agreement, and, if necessary, (iii) a new tariff containing rates applicable to the new service area. The utility shall file the required documents with the Commission no later than thirty (30) days of the date the project is transferred to the utility.

7.4.9.d. If rates for the new customers served by a public service district's project are higher than the rates for the public service district's existing customers, the public service district shall, within ninety (90) days of the date the project is transferred to the public service district, make a formal rate application with the Commission in order to justify the higher rates to the new customers. A municipality shall enact an ordinance increasing rates, if necessary, within ninety (90) days of the date the project is transferred to the municipality.

§150-5-8. Safety requirements.

8.1. Accidents.

8.1.1. Records. -- A utility shall keep a record of every accident occurring in connection with the operation of its treatment plant, property and equipment whereby any person is killed or seriously injured, or any substantial amount of property damaged or destroyed, with a full statement of the cause of the accident and the precautions taken to prevent similar accidents in the future.

8.1.2. Electric shock. -- A utility shall instruct its employees engaged in electrical work in the practice and use of accepted rules and proper procedure for resuscitation from electric shock.

8.1.3. Asphyxiation. -- A utility shall inform its employees who must work in manholes and pits of the dangers of asphyxiation and instruct them in the practice and use of accepted rules for detection of dangerous gases, as well as the proper procedure for treating victims.

§150-5-9. Creation or alteration of public service districts.

9.1. Creation or alteration of a public service district.

9.1.1. A county commission upon entering an order on its own motion, or upon receipt of a petition, or upon receipt of a recommendation of the Commission, proposing the creation, enlargement, reduction, merger, dissolution, or consolidation of a public service district pursuant to W. Va. Code §16-13A-2, shall:

9.1.1.a. At the same session, fix a date of hearing in the county which date shall be not more than forty (40) days nor less than twenty (20) days from the date of the action;

EXHIBIT B

DEVELOPER'S PROJECT

The Sewage Collection System to be constructed by Developer is described in the attached pages.

WV STATE GRID NORTH (NAD83)

EX. 30' PRESCRIPTIVE WVDOH RIGHT-OF-WAY

EX. UTILITY POLE (TYP.)

EX. EDGE OF PAVEMENT (TYP.)

TEMP. 2" B.O.V.

FLOWING SPRINGS ROAD - CO. ROUTE 17 30' RIGHT-OF-WAY

IG TOTONJI HOLDINGS LLC
T.M. 3, PAR. 9.4
DB. 1192 PG. 436
USE: VACANT
ZONED: RURAL

DANIELS FOREST LLC
T.M. 3, PAR. 9.2
DB. 1168 PG. 718
USE: VACANT/FARM
ZONED: RURAL

OPEN SPACE C

OPEN SPACE B

OPEN SPACE D

OPEN SPACE E

OPEN SPACE F

ATKINSON ST.

STONECREST AVE.

SANDERS WAY

CHILTOLWAY

BALTONOR

MATCHLINE
SEE SHEET 31

MATCHLINE
SEE SHEET 34

S85°39'24"E
2610.71'

N07°57'42"E
1287.80'

GRAPHICAL SCALE: 1"=50'

UTILITY PLAN LEGEND:

- SANITARY SEWER MAIN
- SANITARY SEWER MANHOLE
- SANITARY SEWER LATERAL & CLEANOUT
- STORM SEWER MAIN
- STORM SEWER CURB INLET / DROP INLET / MANHOLE
- STORM SEWER OUTFALL & END SECTION W/ OUTLET PROTECTION
- WATER MAIN
- FIRE HYDRANT
- WATER SERVICE LINE & METER
- WATER VALVE / TEE WITH VALVES / HORIZONTAL BEND

INTEGRITY
FEDERAL SERVICES
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148 S. Queen Street, Suite 201 • Martinsburg, WV 25401 • Phone: 304-725-8456 • www.ifs-se.com

JASON P. RUPP
LICENSED PROFESSIONAL ENGINEER
ADVANCE COPY NOT FOR CONSTRUCTION
SEAL:

REVISIONS

1. 10/11/2022 - WVDOH COMMENTS
2. 10/25/2022 - JEFFERSON UTILITIES AND CTUB COMMENTS

UTILITY PLAN

STONECREST SUBDIVISION

TAX MAP 3, PARCEL 9; D.B. 1255, PG. 569
CHARLES TOWN TAX DISTRICT
JEFFERSON COUNTY, WEST VIRGINIA

J.C. FILE #22-11-SD

SCALE:	HORIZ.: 1"=50' VERT.:
DATE:	JUNE 2022
JOB:	2582-0103
DRAWN: MAC	CHECK: RPP
CADD: C-CU-101.DWG	
NCS:	CU-101
SHEET:	30 OF 130

UTILITY PLAN LEGEND:

- SANITARY SEWER MAIN
- SANITARY SEWER MANHOLE
- SANITARY SEWER LATERAL & CLEANOUT
- STORM SEWER MAIN
- STORM SEWER CURB INLET / DROP INLET / MANHOLE
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- WATER MAIN
- FIRE HYDRANT
- WATER SERVICE LINE & METER
- WATER VALVE / TEE WITH VALVES / HORIZONTAL BEND

GRAPHICAL SCALE: 1"=50'

MATCHLINE
SEE SHEET 30

MATCHLINE
SEE SHEET 32

DANIELS FOREST LLC
T.M. 3, PAR. 9.2
DB. 1168 PG. 718
USE: VACANT/FARM
ZONED: RURAL

DWAYNE H. MASEMER
T.M. 3, PAR. 13.1
DB. 990 PG. 637
USE: RESIDENTIAL
ZONED: RURAL

SEAN T. CROW &
MORGAN A. CADLE
T.M. 3, PAR. 13.5
DB. 1197 PG. 346
USE: RESIDENTIAL
ZONED: RURAL

MATTHEW L. &
KAYSIE L. STAUBS
T.M. 3, PAR. 13.6
DB. 1174 PG. 533
USE: RESIDENTIAL
ZONED: RURAL

MARC C. & BELYNDA
D. MAYRAND
T.M. 3, PAR. 13.2
DB. 1123 PG. 90
USE: RESIDENTIAL
ZONED: RURAL

DAVID EVANS &
EILEEN J. LAM
T.M. 3, PAR.13.3
DB. 1149 PG. 427
USE: RESIDENTIAL
ZONED: RURAL

SHADE TREE LANE

WV STATE GRID NORTH (NAD83)

EX. BUILDING

EX. BOARD FENCE (TYP.)

EX. GRAVEL DRIVEWAY (TYP.)

EX. DECK

SWM AREA A

ATKINSON ST.

BUCKEYE DR.

STONECREST AL

PALTON DR.

5" PVC STUB FOR FUTURE EXTENSION

TEMP. 2" B.O.V.

3/4" SINGLE WATER SERVICE LINE (TYP.)

1" DOUBLE WATER SERVICE LINE (TYP.)

4" SINGLE SANITARY SERVICE LATERAL (TYP.)

6" DOUBLE SANITARY SERVICE LATERAL (TYP.)

8" PVC W/M (TYP.)

8" PVC SAN. SEW.

1-F.H. ASSEMBLY
1-8"x6" REDUCER
1-6" GATE VALVE

1-F.H. ASSEMBLY
1-6"x6" TEE
1-6" GATE VALVE

1-16"x8" CROSS
2-16" GATE VALVES
2-8" GATE VALVES

1-16"x8" TEE
1-16" GATE VALVE
1-8" GATE VALVE

45° HORIZ BEND

22.5° HORIZ BEND

MODIFIED VDOT JUNCTION BOX CHAMBER (TYP.)

MODIFIED 30" HEADWALL (DR1)

20' CLASS I RIP-RAP (TYP.)

12' CLASS I RIP-RAP (TYP.)

10' CLASS I RIP-RAP (TYP.)

OPEN SPACE F

30"-16" STEEL PIPE CASING

20' STM ESMT

STM ESMT

SAN SEW ESMT

SWM ESMT (TYP.)

W/L ESMT

20' W/L ESMT

AIR RELEASE VALVE

RETAINING WALL (TYP.) (BY OTHERS)

2' CURB CUT

PR. PLUNGE POOL W/ CLASS I RIP-RAP

VDOT SWM RISER STRUCTURE W/ TRASH RACK

6" NON-PERFORATED PVC UNDERDRAIN (TYP.)

6" PERFORATED PVC UNDERDRAIN (TYP.)

6" PVC CLEANOUT (TYP.)

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UTILITY PLAN

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CHARLES TOWN TAX DISTRICT
JEFFERSON COUNTY, WEST VIRGINIA

J.C. FILE #22-11-SD

SCALE:	HORIZ.: 1"=50' VERT.:
DATE:	JUNE 2022
JOB:	2582-0103
DRAWN: MAC	CHECK: RPP
CADD: C-CU-101.DWG	
NCS:	CU-102
SHEET:	31 OF 130

MATCHLINE
SEE SHEET 31

MATCHLINE
SEE SHEET 33

WV STATE GRID NORTH (NAD83)

SAN SEW ESM'T

LOT 302 · LOT 98 · LOT 99 · LOT 300 · LOT 100 · LOT 101 · LOT 299 · LOT 102 · LOT 298 · LOT 103 · LOT 297 · LOT 104 · LOT 296 · LOT 105 · LOT 295 · LOT 106 · LOT 294 · LOT 107 · LOT 291 · LOT 292 · LOT 293 · LOT 108 · LOT 140 · LOT 139 · LOT 138 · LOT 137 · LOT 136 · LOT 135 · LOT 134 · LOT 109 · LOT 110 · LOT 111 · LOT 112 · LOT 113 · LOT 114 · LOT 115 · LOT 116 · LOT 117 · LOT 118 · LOT 119 · LOT 120 · LOT 121 · LOT 122 · LOT 123 · LOT 124 · LOT 125 · LOT 126 · LOT 127 · LOT 128 · LOT 129 · LOT 130 · LOT 131 · LOT 132 · LOT 133

20' STM ESM'T · 15" HDPE · 18" HDPE · 24" HDPE · 30" HDPE · 36" HDPE · 42" HDPE · 48" HDPE

6" DOUBLE SANITARY SERVICE LATERAL (TYP.) · 6" SINGLE SANITARY SERVICE LATERAL (TYP.) · 4" SINGLE SANITARY SERVICE LATERAL (TYP.) · 6" DOUBLE SANITARY SERVICE LATERAL (TYP.) · 8" DOUBLE SANITARY SERVICE LATERAL (TYP.)

1" DOUBLE WATER SERVICE LINE (TYP.) · 1" DOUBLE WATER SERVICE LINE (TYP.) · 1" SINGLE WATER SERVICE LINE (TYP.) · 3/4" SINGLE WATER SERVICE LINE (TYP.)

6" PVC CLEANOUT (TYP.) · 6" PERFORATED PVC UNDERDRAIN (TYP.) · 6" NON-PERFORATED PVC UNDERDRAIN (TYP.)

SWM AREA A · SWM ESM'T (TYP.)

HICKEYE DR. · BUCKEYE DR. · MAXWELL ST. · McGRAW PL · SHADE TREE LANE

20' WIL ESM'T · W/L ESM'T · STM ESM'T

1-F.H. ASSEMBLY 1-8"x6" REDUCER 1-6" GATE VALVE · 1-F.H. ASSEMBLY 1-6"x6" TEE 1-6" GATE VALVE · 1-F.H. ASSEMBLY 1-8"x6" REDUCER 1-6" GATE VALVE · 1-F.H. ASSEMBLY 1-6"x6" TEE 1-6" GATE VALVE · 1-6"x6" TEE 2-6" GATE VALVES · 1-8"x6" TEE 2-6" GATE VALVES · 1-8"x6" TEE 2-8" GATE VALVES · 1-6"x6" TEE 1-6" GATE VALVE

45° HORIZ BEND · 30"/6" STEEL PIPE CASING · 16" CLASS I RIP-RAP (TYP.) · 32" CLASS I RIP-RAP (TYP.) · TEMP. 2" B.O.V.

8" PVC W/M (TYP.) · 8" PVC SAN. SEW. · 6" PVC W/M (TYP.) · 6" PVC SAN. SEW. · 10" PVC SAN. SEW.

20' SAN. SEW. ESM'T (TYP.) · 40' TEMP. CONST. ESM'T (TYP.)

EX. GRAVEL DRIVEWAY (TYP.) · EX. BUILDING · EX. BOARD FENCE (TYP.) · EX. GRAVEL DRIVE (TYP.) · EX. BUILDINGS

JAHANGIR GHOBADI ET AL
T.M. 5, PAR. 4
DB. 942 PG. 546
USE: RESIDENTIAL
ZONED: RURAL

RODERICK PLANES LLC
T.M. 4, PAR. 19
DB. 952 PG. 565
USE: AGRICULTURE
ZONED: RURAL
FUTURE 'ASPEN GREENS' PHASE III SUBDIVISION

FUTURE WINTERGREEN WAY · FUTURE RUSHPINK CIRCLE

GRAPHICAL SCALE: 1"=50'

UTILITY PLAN LEGEND:

- SANITARY SEWER MAIN
- SANITARY SEWER MANHOLE
- SANITARY SEWER LATERAL & CLEANOUT
- STORM SEWER MAIN
- STORM SEWER CURB INLET / DROP INLET / MANHOLE
- STORM SEWER OUTFALL & END SECTION W/ OUTLET PROTECTION
- WATER MAIN
- FIRE HYDRANT
- WATER SERVICE LINE & METER
- WATER VALVE / TEE WITH VALVES / HORIZONTAL BEND

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JASON P. RUBY · No. 21627 · STATE OF WEST VIRGINIA · PROFESSIONAL ENGINEER
SEAL:

REVISIONS
1. 10/11/2022 - WVDOH COMMENTS
2. 10/26/2022 - JEFFERSON UTILITIES AND CTUB COMMENTS

UTILITY PLAN

STONECREST SUBDIVISION

TAX MAP 3, PARCEL 9, D.B. 1255, PG. 569
CHARLES TOWN TAX DISTRICT
JEFFERSON COUNTY, WEST VIRGINIA

J.C. FILE #22-11-SD

SCALE:	HORIZ.: 1"=50' VERT.:
DATE:	JUNE 2022
JOB:	2582-0103
DRAWN: MAC	CHECK: RPP
CADD: C-CU-101.DWG	
NCS:	CU-103
SHEET:	32 OF 130

FILE PATH: G:\PROJECTS\GENERAL\2080-0103 STONECREST\ENGINEERING\CU-101.DWG
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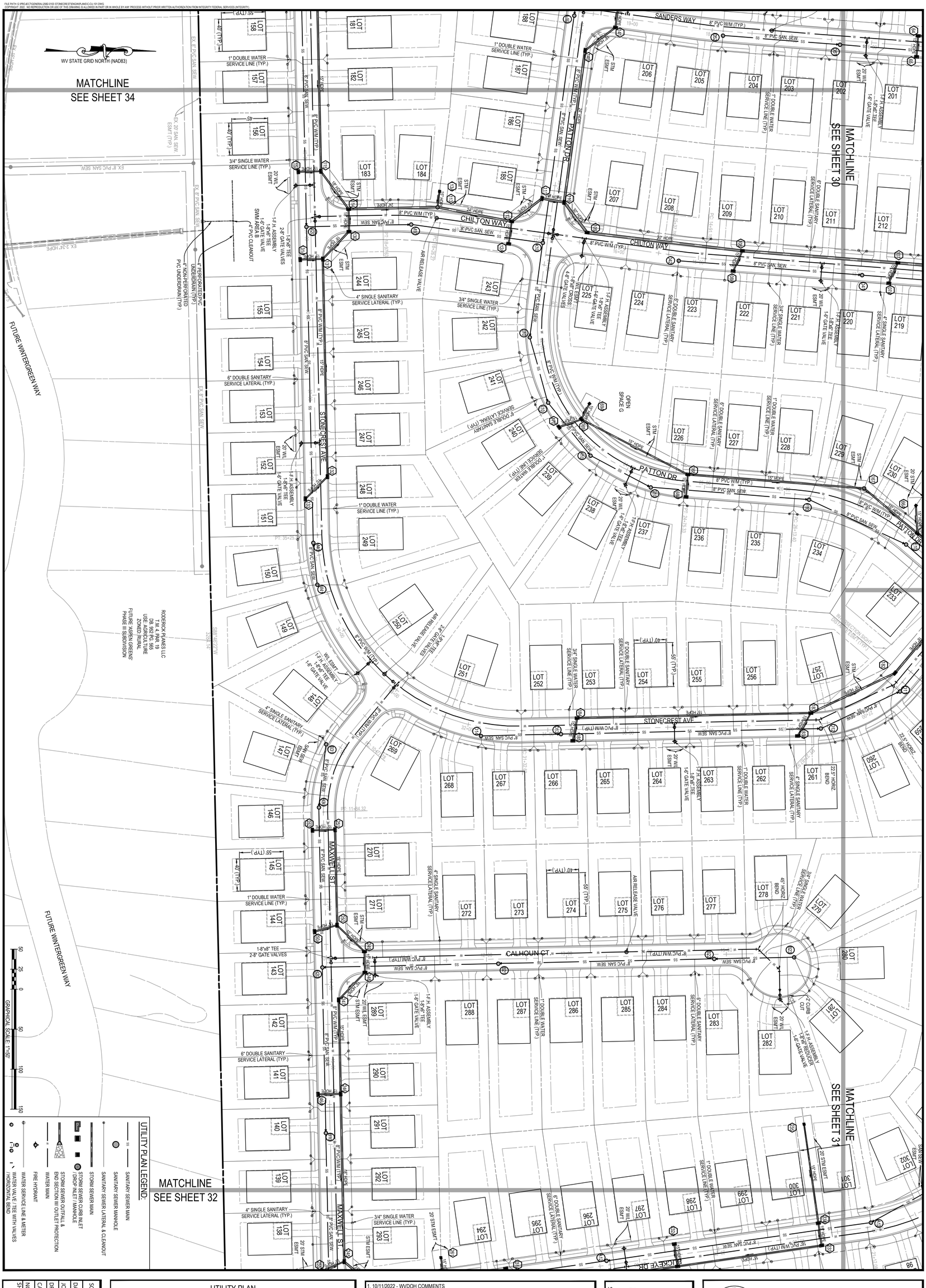

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DATE:	JUNE 2022
JOB:	2582-0103
DRAWN:	MAC CHECK: RPP
CADD:	C-CU-101.DWG
NCS:	CU-104
SHEET:	33 OF 130

UTILITY PLAN

STONECREST SUBDIVISION

TAX MAP 3, PARCEL 9; D.B. 1255, PG. 569
CHARLES TOWN TAX DISTRICT
JEFFERSON COUNTY, WEST VIRGINIA

J.C. FILE #22-11-SD

1. 10/11/2022 - WVDOH COMMENTS
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WV STATE GRID NORTH (NAD83)

EX. FELLOWSHIP BIBLE CHURCH

EX. EDGE OF PAVEMENT (TYP.)

EX. BUILDING

EX. CULVERT

EX. 30' PRESCRIPTIVE WVDOH RIGHT-OF-WAY

DANIEL BEANS
T.M. 3, PAR. 9.3
DB. 1215 PG. 51
LISE: RESIDENTIAL
ZONED: RURAL

DANIEL ROAD - CO. ROUTE 18
50' RIGHT-OF-WAY

FLOWING SPRINGS ROAD - CO. ROUTE 17
50' RIGHT-OF-WAY

FELLOWSHIP BIBLE CHURCH-TRUSTEES
T.M. 3, PAR. 4.5
DB. 922 PG. 338
USE: RELIGIOUS
ZONED: RURAL

EX. UTILITY POLE (TYP.)

EX. 30' PRESCRIPTIVE WVDOH RIGHT-OF-WAY

EX. EDGE OF PAVEMENT (TYP.)

ANGUS MCDONALD
T.M. 4, PAR. 12
DB. 1189 PG. 356
USE: FARM
ZONED: RURAL

EX. ROAD SIGN (TYP.)

EX. 12" WATER MAIN (TYP.) (APPROX. LOCATION)

OPEN SPACE B

OPEN SPACE A

OPEN SPACE E

MATCHLINE
SEE SHEET 30

MATCHLINE
SEE SHEET 33

ATHANOR ST

PATTON DR.

SANDERS WAY

UNDERWOOD DR.

FLEMING CT.

STONECREST AVE

WINTERGREEN WAY
50' RIGHT-OF-WAY

LOTS 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206

55' (TYP.)

60' (TYP.)

20' STM ESM'T

20' W/L ESM'T

INTERSECTION SIGHT DISTANCE ESM'T (TYP.)

12" PVC W/M (TYP.)

18" HDPE

15" HDPE

8" PVC W/M (TYP.)

8" PVC SAN. SEW.

45° HORIZ. BEND

1-F.H. ASSEMBLY
1-12"x6" TEE
1-6" GATE VALVE

1-12"x12" CROSS
4-12" GATE VALVES
2-12"x8" REDUCERS

1-F.H. ASSEMBLY
1-8"x6" TEE
1-6" GATE VALVE

1-8"x6" TEE
2-6" GATE VALVES

1-F.H. ASSEMBLY
1-8"x6" REDUCER
1-6" GATE VALVE

1-F.H. ASSEMBLY
1-8"x6" TEE
1-6" GATE VALVE

6" DOUBLE SANITARY SERVICE LATERAL (TYP.)

4" SINGLE SANITARY SERVICE LATERAL (TYP.)

1" DOUBLE WATER SERVICE LINE (TYP.)

3/4" SINGLE WATER SERVICE LINE (TYP.)

AIR RELEASE VALVE

W/L ESMT

STM ESMT

20' W/L ESMT

2' CURB CUT
EX. HEADWALL
EX. 30" HDPE

EX. MOUNTABLE CURB & GUTTER (TYP.)

EX. CONCRETE SIDEWALK (TYP.)

EX. 15" HDPE

EX. 30" HDPE

EX. 45" HDPE

EX. 8" WATER MAIN (TYP.) (APPROX. LOCATION)

PHASE IIA

PHASE IIB

PC: 11+37.01

PT: 12+95.55

PC: 12+86.19

PT: 18+15.85

4" PVC CLEANOUT

4" PERFORATED PVC UNDERDRAIN (TYP.)

4" NON-PERFORATED PVC UNDERDRAIN (TYP.)

TEST PIT REQUIRED. CONNECT TO EX. 12" WATER MAIN.

EX. SAN. SEW. MANHOLE (TYP.)

EX. WATER VALVE (TYP.)

EX. 8" PVC SAN. SEW.

EX. 20' SAN. SEW. ESM'T (TYP.)

EX. 20' SAN. SEW. ESM'T

EX. BUILDING

CLARE & VIRAKTEP ATH
T.M. 4G, PAR. 22
DB. 1234 PG. 356
(LOT 22 ASPEN GREENS SUBDIVISION)
USE: RESIDENTIAL
ZONED: RURAL

DAVID & JULIA ALLEN
T.M. 4G, PAR. 21
DB. 1232 PG. 740
(LOT 21 ASPEN GREENS SUBDIVISION)
USE: RESIDENTIAL
ZONED: RURAL

FUTURE 'ASPEN GREENS' PHASE IIA SUBDIVISION

100' TEMP. CONST. ESM'T (TYP.)

RODERICK PLANES LLC
T.M. 4, PAR. 19
DB. 952/PG. 565
USE: AGRICULTURE
ZONED: RURAL

FUTURE 'ASPEN GREENS' PHASE IIB SUBDIVISION

UTILITY PLAN LEGEND:

- SANITARY SEWER MAIN
- SANITARY SEWER MANHOLE
- SANITARY SEWER LATERAL & CLEANOUT
- STORM SEWER MAIN
- STORM SEWER CURB INLET / DROP INLET / MANHOLE
- STORM SEWER OUTFALL & END SECTION W/ OUTLET PROTECTION
- WATER MAIN
- FIRE HYDRANT
- WATER SERVICE LINE & METER
- WATER VALVE / TEE WITH VALVES / HORIZONTAL BEND

50 25 0 50 100 150
GRAPHICAL SCALE: 1"=50'

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NCS:	CU-105
SHEET:	34 OF 130

STONECREST SANITARY EASEMENT THROUGH ASPEN GREENS

STONECREST SUBDIVISION
(320 EDU'S)

ASPEN GREENS
SUBDIVISION
(203 EDU'S)

OFFSITE SANITARY SEWER
EASEMENT

N

Gravity
Parcels_2022
Roads

0 245 490 980 Feet

Charles Town
Utility Board
661 S. George Street, Suite 101 Charles Town, WV 25414
Phone: (304) 725-2316 ♦ Fax: (304) 725-7150 ♦ Web: www.ctubwv.com

MEMORANDUM TO THE BOARD OF DIRECTORS

FROM: Kristen Stolipher, Utility General Manager
SUBJECT: Utility General Manager's Report
DATE: June 28, 2023

ADMINISTRATIVE

- Customer Counts
  - Sewer 8,495
  - Water 6,550
- Class Cost of Service Presentation on water and sewer rates set for July 12th

WATER

- Lead and Copper Inventory on-going
- Hydrant Flushing complete
  - See attached exhibit of hydrants flushed
    - 2023 Summer totals = 165
    - 2022 Summer totals=62
- Hydrant painting efforts initiated
- Valve Assessment Program kick-off held on June 5th

SEWER

- **Renewal and Replacement project**
  - Project update attached

Customer Name	Location	Lot Number	CIF Date Paid	Number of Sewer EDUs	Sewer CIF Amount Paid	Number of Water EDU's	Water CIF Amount Paid
Lennar	Shenandoah Springs	5, 6	1/10/2023	2	$ 9,110.00		
Lutman Land Development	Beckwith/Shutter		1/10/2023	4	$ 11,720.00	4	$ 17,596.00
Lennar	Norborne Glebe	T015-T021, T068-T074	1/20/2023	14	$ 41,020.00	14	$ 61,586.00
Dan Ryan Builders	Aspen Greens	75	1/20/2023	1	$ 2,930.00		
Lennar	Lennar	1-4	1/20/2023	4	$ 18,220.00		
Dan Ryan Builders	Tate Manor	75-80	1/26/2023	6	$ 17,580.00	6	$ 26,394.00
Dan Ryan Builders	Tate Manor	70-74	1/26/2023	5	$ 14,650.00	6	$ 21,995.00
Lennar	Norborne Glebe	T022-T034	2/9/2023	13	$ 38,090.00	13	$ 57,187.00
Dan Ryan Builders	Huntfield	322-328	2/8/2023	7	$ 20,510.00	7	$ 30,793.00
Dan Ryan Builders	Aspen Greens	51, 70, 83	2/8/2023	3	$ 8,790.00		
Dan Ryan Builders	Huntfield	554-558	2/9/2023	5	$ 14,650.00	5	$ 21,995.00
Dan Ryan Builders	Aspen Greens	69	2/22/2023	1	$ 2,930.00		
Dan Ryan Builders	Aspen Greens	48	2/23/2023	1	$ 2,930.00		
Dan Ryan Builders	Huntfield	625	2/24/2023	1	$ 2,930.00	1	$ 4,399.00
Dan Ryan Builders	Huntfield	376	2/28/2023	1	$ 2,930.00	1	$ 4,399.00
Dan Ryan Builders	Aspen Greens	50	3/3/2023	1	$ 2,930.00		
Lennar	Norborne Glebe	253-259	3/3/2023	7	$ 20,510.00	7	$ 30,793.00
Lennar	Norborne Glebe	T035-T041, T055-T060	3/3/2023	13	$ 38,090.00	13	$ 57,187.00
Dan Ryan Builders	Huntfield	893-897	3/13/2023	5	$ 14,650.00	5	$ 21,995.00
Dan Ryan Builders	Aspen Greens	53, 71	3/14/2023	2	$ 5,860.00		
DRH	Magnolia Springs	188-194	3/14/2023	7	$ 20,510.00		
Wormald	Beallair	215	3/14/2023	1	$ 2,930.00		
Stanley Martin	Presidents Pointe	97-104	3/14/2023	8	$ 36,440.00		
Colandrea Corp	Inferno Brewery	13	3/15/2023	4.03	$ 18,356.65		
Lennar	Norborne Glebe	T042-T054, T061-T067	3/21/2023	20	$ 58,600.00	20	$ 87,980.00
Maronda	Huntwell West	1,5,6,7	3/21/2023	4	$ 11,720.00		
Maronda	Huntwell West	3,4,8,9,10	3/22/2023	5	$ 14,650.00		
Washington Landing LLC	Washington Landing 700,800,900		3/24/2023			35.5	$ 91,464.00
Dan Ryan Builders	Aspen Greens	67, 72, 81	3/28/2023	3	$ 8,790.00		
Dan Ryan Builders	Huntfield	469	3/28/2023	1	$ 2,930.00	1	$ 4,399.00
Wormald	Beallair	216, 232, 303	3/28/2023	3	$ 8,790.00		
Dan Ryan Builders	Aspen Greens	55	3/30/2023	1	$ 2,930.00		
Stanley Martin	Presidents Pointe	105-108	3/31/2023	4	$ 18,220.00		
Engle	169 Euclid Ave - detached garage		4/3/2023	1	$ 2,930.00	1	$ 4,399.00
Dan Ryan Builders	Huntfield	364	4/7/2023	1	$ 2,930.00	1	$ 4,399.00
Dan Ryan Builders	Huntfield	897-904	4/7/2023			8	$ 35,192.00
Dan Ryan Builders	Tate Manor	53-58	4/7/2023	6	$ 17,580.00	6	$ 26,394.00
Dan Ryan Builders	Tate Manor	11	4/10/2023	1	$ 2,930.00		
Dan Ryan Builders	Aspen Greens	54	4/13/2023	1	$ 2,930.00		
Dan Ryan Builders	Aspen Greens	68	4/18/2023	1	$ 2,930.00		
Wormald	Beallair	54, 225	4/21/2023	2	$ 5,860.00		
Stanley Martin	Presidents Pointe	109-116	4/25/2023	8	$ 36,440.00		
Dan Ryan Builders	Huntfield	451-456	4/25/2023	6	$ 17,580.00	6	$ 26,394.00
Dan Ryan Builders	Huntfield	374	4/26/2023	1	$ 2,930.00	1	$ 4,399.00
DRH	Magnolia Springs	188-197	4/28/2023			10	$ 43,990.00
DRH	Magnolia Springs	195-197	4/28/2023	3	$ 8,790.00		
DRH	Magnolia Springs	258-268, 273-288	4/28/2023	27	$ 79,110.00	27	$ 118,773.00
DRH	Magnolia Springs	897-904	4/28/2023	8	$ 23,440.00		
Dan Ryan Builders	Aspen Greens	52, 58	5/3/2023	2	$ 5,860.00		
Dan Ryan Builders	Huntfield	437-440	5/3/2023	4	$ 11,720.00	4	$ 17,596.00
Secatello	E 7th Ave, Parcel 141 Townhomes (1 existing)	A&B	5/3/2023	1	$ 2,930.00	1	$ 4,399.00
Holtzman	W Burr Park	16	5/4/2023	4.09	$ 13,127.00		
Wormald	Beallair	208	5/5/2023	1	$ 2,930.00		
Stanley Martin	Presidents Pointe	117-122	5/12/2023	6	$ 27,330.00		
Wormald	Beallair	224	5/16/2023	1	$ 2,930.00		
Dan Ryan Builders	Huntfield	445	5/16/2023	1	$ 2,930.00	1	$ 4,399.00
Dan Ryan Builders	Huntfield	446-450	5/16/2023	5	$ 14,650.00	5	$ 21,995.00
Dura Trac	West Burr		5/18/2023	0.3	$ 879.00		
Dan Ryan Builders	Huntfield	441-444	5/19/2023	4	$ 11,720.00	4	$ 17,596.00
Porter	Charles Town Road	17, 19	5/22/2023	2	$ 5,860.00	2	$ 8,798.00
Dan Ryan Builders	Aspen Greens	57, 63, 66	5/24/2023	3	$ 8,790.00		
Wormald	Beallair	211, 226	5/24/2023	2	$ 5,860.00		
Lutman Land Development	Jefferson Avenue	10	5/24/2023	1	$ 2,930.00	1	$ 4,399.00
Stanley Martin	Presidents Pointe	123-126	5/26/2023	4	$ 18,220.00		
Jiffy Lube	Joshua Freeway Blvd	11	5/29/2023	0.8	$ 3,644.00		
Dan Ryan Builders	Aspen Greens	74	6/6/2023	1	$ 2,930.00		
Dan Ryan Builders	Huntfield	342-348	6/6/2023	7	$ 20,510.00	7	$ 30,793.00
Dan Ryan Builders	Aspen Greens	56	6/7/2023	1	$ 2,930.00		
Dan Ryan Builders	Huntfield	347A	6/7/2023			1	$ 4,399.00
Lutman Land Development	Samuel Station	24-29	6/7/2023	6	$ 17,580.00	6	$ 26,394.00
Dan Ryan Builders	Huntfield	347A	6/8/2023	1	$ 2,930.00		
Dan Ryan Builders	Huntfield	470	6/16/2023	1	$ 2,930.00	1	$ 4,399.00
			Total	**282.22**	$ 894,396.65	**231.5**	$ 949,269.00

Charles Town Utility Board
2023 Capacity Improvement Fee Collections/EDU for Sewer

Month	Commercial	Residential	Total Number of EDU's	Total Sewer CIF Collected	CIF Paid to Ranson	Total
Jan-23		36	36	$ 115,230.00	$ 9,750.00	$ 105,480.00
Feb-23		32	32	$ 93,760.00		$ 93,760.00
Mar-23	4.03	85	89.03	$ 286,906.65	$ 19,500.00	$ 267,406.65
Apr-23		66	66	$ 206,380.00	$ 13,000.00	$ 193,380.00
May-23	5.19	37	42.19	$ 142,310.00	$ 17,875.00	$ 124,435.00
Jun-23		17	17	$ 49,810.00		$ 49,810.00
Jul-23						$ -
Aug-23						$ -
Sep-23						$ -
Oct-23						$ -
Nov-23						$ -
Dec-23						$ -
Total 2023	**9.22**	**273**	**282.22**	**$ 894,396.65**	**$ 60,125.00**	**$ 834,271.65**

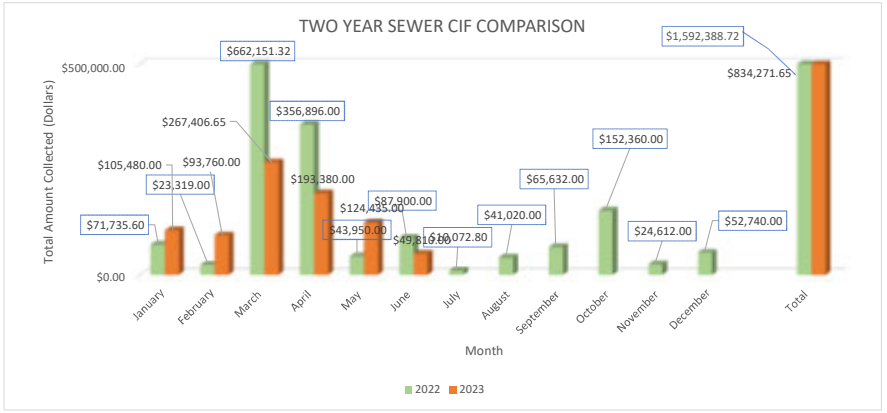
Charles Town Utility Board
2023 Capacity Improvement Fee Collections/EDU for Water

Month	Commercial	Residential	Total Number of EDU's	Total Water CIF
Jan-23		30	30	$ 127,571.00
Feb-23		27	27	$ 118,773.00
Mar-23		81.5	81.5	$ 293,818.00
Apr-23		60	60	$ 263,940.00
May-23		18	18	$ 79,182.00
Jun-23		15	15	$ 65,985.00
Jul-23				
Aug-23				
Sep-23				
Oct-23				
Nov-23				
Dec-23				
Total 2023	**0**	**231.5**	**231.5**	**$ 949,269.00**

Charles Town Utility Board 2022 Capacity Improvement Fee Collections/EDU for Sewer						
Month	Commercial	Residential	Total Number of EDU's	Total Sewer CIF Collected	CIF Paid to Ranson	Total
Jan-22	1.53	29.03	30.56	$ 71,735.60		$ 71,735.60
Feb-22		17	17	$ 23,319.00		$ 23,319.00
Mar-22	146.59	34	180.59	$ 662,151.32		$ 662,151.32
Apr-22		129	129	$ 389,396.00	$ 32,500.00	$ 356,896.00
May-22		15	15	$ 43,950.00		$ 43,950.00
Jun-22		30	30	$ 87,900.00		$ 87,900.00
Jul-22	0.04	3	3.04	$ 10,072.80		$ 10,072.80
Aug-22		14	14	$ 41,020.00		$ 41,020.00
Sep-22	0.4	22	22.4	$ 90,007.00	$ 24,375.00	$ 65,632.00
Oct-22	0	52	52	$ 175,110.00	$ 22,750.00	$ 152,360.00
Nov-22	0	8	8.4	$ 24,612.00		$ 24,612.00
Dec-22	0	18	18	$ 52,740.00		$ 52,740.00
Total 2022	**1.97**	**301**	**519.99**	**$1,672,013.72**	**$79,625.00**	**$1,592,388.72**

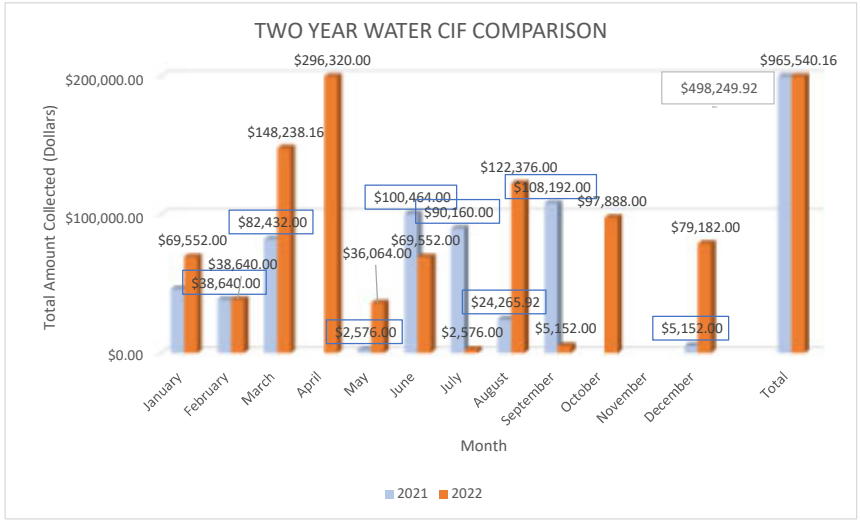


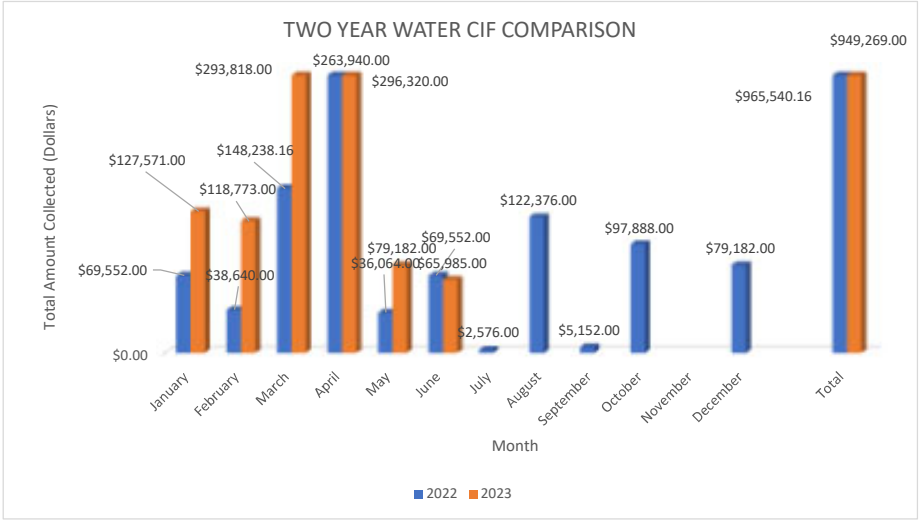
Charles Town Utility Board 2023 Capacity Improvement Fee Collections/EDU for Sewer						
Month	Commercial	Residential	Total Number of EDU's	Total Sewer CIF Collected	CIF Paid to Ranson	Total
Jan-23		36	36	$ 115,230.00	$ 9,750.00	$ 105,480.00
Feb-23		32	32	$ 93,760.00		$ 93,760.00
Mar-23	4.03	85	89.03	$ 286,906.65	$ 19,500.00	$ 267,406.65
Apr-23		66	66	$ 206,380.00	$ 13,000.00	$ 193,380.00
May-23	5.19	37	42.19	$ 142,310.00	$ 17,875.00	$ 124,435.00
Jun-23		17	17	$ 49,810.00		$ 49,810.00
Jul-23						
Aug-23						
Sep-23						
Oct-23						
Nov-23						
Dec-23						
Total 2023	**9.22**	**273**	**282.22**	**$894,396.65**	**$60,125.00**	**$834,271.65**



Charles Town Utility Board 2022 Capacity Improvement Fee Collections/EDU for Water				
Month	Commercial	Residential	Total Number of EDU's	Total Water CIF
Jan-22		27	27	$ 69,552.00
Feb-22		15	15	$ 38,640.00
Mar-22	39.35	30	69.35	$ 148,238.16
Apr-22	23.03	92	115.03	$ 296,320.00
May-22		14	14	$ 36,064.00
Jun-22		27	27	$ 69,552.00
Jul-22		1	1	$ 2,576.00
Aug-22	36	12	47.5	$ 122,376.00
Sep-22		2	2	$ 5,152.00
Oct-22	0	38	38	$ 97,888.00
Nov-22	0	0	0	
Dec-22	0	18	18	$ 79,182.00
Total 2022	**97.88**	**238**	**373.88**	**$ 965,540.16**

2023 Capacity Improvement Fee Collections/EDU for Water				
Month	Commercial	Residential	Total Number of EDU's	Total Water CIF
Jan-22		30	30	$ 127,571.00
Feb-22		27	27	$ 118,773.00
Mar-22		81.5	81.5	$ 293,818.00
Apr-22		60	60	$ 263,940.00
May-22		18	18	$ 79,182.00
Jun-22		15	15	$ 65,985.00
Jul-22				
Aug-22				
Sep-22				
Oct-22				
Nov-22				
Dec-22				
Total 2023	**0**	**232**	**231.5**	**$ 949,269.00**





CHARLES TOWN UTILITY BOARD
WASTEWATER TREATMENT PLANT FLOW DATA

CHARLES TOWN WASTEWATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	Total Available (EDU's)
2015	1.75	384	1.05	0.7	700,000	4,667
2016	1.75	419	1.14	0.61	610,000	4,067
2017	1.75	393	1.08	0.67	670,000	4,467
2018	1.75	491	1.34	0.41	410,000	2,733
2019	1.75	459	1.26	0.49	490,000	3,267
2020	1.75	419.7	1.15	0.60	603,333	4,022
2021	1.75	401.61	1.11	0.64	637,500	4,250
2022	1.75	387.15	1.06	0.69	687,500	4,583
2023	1.75	156.27	1.05	0.70	704,000	4,693

TUSCAWILLA WASTEWATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	Total Available (EDU's)
2015	0.5	48	0.13	0.37	370,000	2,467
2016	0.5	49	0.13	0.37	370,000	2,467
2017	0.5	48	0.14	0.36	360,000	2,400
2018	0.5	78	0.21	0.29	290,000	1,933
2019	0.5	55.24	0.15	0.35	350,000	2,333
2020	0.5	1.09	0.16	0.34	340,000	2,267
2021	0.5	32.55	0.10	0.40	400,833	2,672
2022	0.5	62.8	0.17	0.33	328,333	2,189
2023	0.5	32.52	0.22	0.28	284,000	1,893

Total EDU's available between CT and Tuscawilla	
2015	7,133
2016	6,533
2017	6,867
2018	4,667
2019	5,600
2020	6,289
2021	6,922
2022	6,772
2023	6,587

2021		
	Total	AVERAGE
JANUARY	35.83	1.22
FEBRUARY	32.98	1.18
MARCH	36.39	1.17
APRIL	34.33	1.18
MAY	33.24	1.07
JUNE	36.24	1.21
JULY	30.99	1.00
AUGUST	29.94	0.97
SEPTEMBER	36.36	1.17
OCTOBER	29.97	0.97
NOVEMBER	30.12	1.00
DECEMBER	35.22	1.21
Annual Total	401.61	1.11

2022		
	Total	AVERAGE
JANUARY	37.25	1.20
FEBRUARY	33.8	1.21
MARCH	33.28	1.07
APRIL	32.98	1.1
MAY	35.86	1.16
JUNE	29.9	1.00
JULY	29.78	0.96
AUGUST	30.19	1.01
SEPTEMBER	29.62	0.96
OCTOBER	29.02	0.94
NOVEMBER	30.09	1.00
DECEMBER	35.38	1.14
Annual Total	387.15	1.06

2023		
	Total	AVERAGE
JANUARY	36.55	1.21
FEBRUARY	28.96	1.03
MARCH	30.46	1.02
APRIL	29.52	0.98
MAY	30.78	0.99
JUNE		
JULY		
AUGUST		
SEPTEMBER		
OCTOBER		
NOVEMBER		
DECEMBER		
Annual Total	156.27	1.05

2021		
	Total	AVERAGE
JANUARY	0.52	0.07
FEBRUARY	2.22	0.08
MARCH	4.22	0.14
APRIL	1.12	0.04
MAY	0.89	0.03
JUNE	3.37	0.11
JULY	3.9	0.13
AUGUST	3.6	0.12
SEPTEMBER	4.53	0.15
OCTOBER	3.94	0.13
NOVEMBER	3.73	0.12
DECEMBER	0.51	0.07
Annual Total	32.55	0.10

2022		
	Total	AVERAGE
JANUARY	0	0
FEBRUARY	0	0
MARCH	4.34	0.14
APRIL	4.68	0.16
MAY	6.03	0.19
JUNE	6.21	0.21
JULY	6.48	0.21
AUGUST	7.01	0.23
SEPTEMBER	7.11	0.24
OCTOBER	7.27	0.23
NOVEMBER	6.94	0.23
DECEMBER	6.73	0.22
Annual Total	62.8	0.17

2023		
	Total	AVERAGE
JANUARY	7.3	0.24
FEBRUARY	6.38	0.23
MARCH	6.41	0.21
APRIL	6.13	0.20
MAY	6.3	0.20
JUNE		
JULY		
AUGUST		
SEPTEMBER		
OCTOBER		
NOVEMBER		
DECEMBER		
Annual Total	32.52	0.216

CHARLES TOWN UTILITY BOARD
WATER TREATMENT PLANT FLOW DATA

CHARLES TOWN WATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	Total Available (EDU's)
2019	2.8	644.32	1.77	1.03	1,034,980	6,900
2020	2.8	615.64	1.68	1.12	1,117,946	7,453
2021	2.8	601.87	1.64	1.16	1,164,627	7,764
2022	2.8	588.97	1.60	1.20	1,204,163	8,028
2023	2.8	247.47	0.68	2.12	2,121,936	14,146

2021		
	Total	AVERAGE
JANUARY	50,030,727	1,613,894
FEBRUARY	45,304,029	1,618,001
MARCH	50,881,983	1,641,354
APRIL	49,098,224	1,636,607
MAY	53,910,537	1,739,050
JUNE	53,051,728	1,711,346
JULY	53,198,248	1,716,073
AUGUST	54,959,872	1,772,899
SEPTEMBER	49,200,580	1,587,115
OCTOBER	49,336,781	1,591,509
NOVEMBER	45,777,260	1,476,686
DECEMBER	47,118,143	1,519,940
Annual Total	601,868,112	1,635,373

2022		
	Total	AVERAGE
JANUARY	47,918,736	1,545,766
FEBRUARY	43,703,896	1,560,853
MARCH	48,063,482	1,550,435
APRIL	47,294,978	1,525,644
MAY	49,834,352	1,607,560
JUNE	49,111,936	1,584,256
JULY	51,919,787	1,674,832
AUGUST	51,872,384	1,673,303
SEPTEMBER	50,844,952	1,640,160
OCTOBER	50,572,280	1,631,364
NOVEMBER	47,643,899	1,536,900
DECEMBER	50,188,260	1,618,976
Annual Total	588,968,942	1,595,837

2023		
	Total	AVERAGE
JANUARY	50,324,969	1,623,386
FEBRUARY	44,512,256	1,589,723
MARCH	51,243,776	1,653,025
APRIL	49,507,092	1,597,003
MAY	51,882,496	1,673,629
JUNE		0
JULY		0
AUGUST		0
SEPTEMBER		0
OCTOBER		0
NOVEMBER		0
DECEMBER		0
Annual Total	247,470,589	678,064

GLEN HAVEN WATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	
2020	0.0216	1.04	0.01	0.01	13,120	
2021	0.0216	3.06	0.01	0.01	13,213	-
2022	0.0216	2.70	0.01	0.01	14,335	-
2023	0.0216	0.00	0.00	0.02	21,600	-

2021		
	Total	AVERAGE
JANUARY	242,200	7,813
FEBRUARY	203,500	7,268
MARCH	241,800	8,636
APRIL	262,300	8,743
MAY	289,700	9,345
JUNE	276,500	8,919
JULY	302,900	9,771
AUGUST	302,900	9,771
SEPTEMBER	227,800	7,348
OCTOBER	285,100	9,197
NOVEMBER	227,200	7,329
DECEMBER	201,500	6,500
Annual Total	3,063,400	8,387

2022		
	Total	AVERAGE
JANUARY	204,300	6,590
FEBRUARY	178,600	5,761
MARCH	191,200	6,168
APRIL	222,000	7,161
MAY	237,300	7,655
JUNE	286,600	9,245
JULY	301,600	9,729
AUGUST	262,800	8,477
SEPTEMBER	221,600	7,148
OCTOBER	236,700	7,635
NOVEMBER	215,200	6,942
DECEMBER	144,500	4,661
Annual Total	2,702,400	7,265

2023		
	Total	AVERAGE
JANUARY	233,300	7,526
FEBRUARY	184,300	5,945
MARCH	218,200	7,039
APRIL	234,800	7,574
MAY	264,800	8,542
JUNE		0
JULY		0
AUGUST		0
SEPTEMBER		0
OCTOBER		0
NOVEMBER		0
DECEMBER		0
Annual Total	1,135,400	3,052

CAVALAND WATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	
2020	0.036	0.59	0.00	0.03	31,210	
2021	0.036	1.91	0.01	0.03	30,766	
2022	0.036	0.00	0.00	0.03	31,041	
2023	0.036	0.00	0.00	0.04	36,000	

2021		
	Total	AVERAGE
JANUARY	150,900	4,868
FEBRUARY	132,900	4,746
MARCH	145,800	5,207
APRIL	152,900	5,097
MAY	177,900	5,739
JUNE	159,000	5,129
JULY	169,600	5,471
AUGUST	177,300	5,719
SEPTEMBER	175,600	5,665
OCTOBER	176,000	5,677
NOVEMBER	151,200	4,877
DECEMBER	143,000	4,613
Annual Total	1,912,100	5,234

2022		
	Total	AVERAGE
JANUARY	150,100	4,842
FEBRUARY	127,200	4,103
MARCH	130,300	4,203
APRIL	141,600	4,568
MAY	145,000	4,677
JUNE	155,500	5,016
JULY	173,500	5,597
AUGUST	167,200	5,394
SEPTEMBER	138,500	4,468
OCTOBER	144,300	4,655
NOVEMBER	145,300	4,687
DECEMBER	226,300	7,300
Annual Total	1,844,800	4,959

2023		
	Total	AVERAGE
JANUARY	134,900	4,352
FEBRUARY	122,700	3,958
MARCH	140,000	4,516
APRIL	143,100	4,616
MAY	153,400	4,948
JUNE		0
JULY		0
AUGUST		0
SEPTEMBER		0
OCTOBER		0
NOVEMBER		0
DECEMBER		0
Annual Total	694,100	1,866

CHARLES TOWN UTILITY BOARD
GD&F ENGINEER'S REPORT
JUNE 21, 2023

Charles Town Wastewater Treatment Plant Improvements (R&R Project)

- The Contractor (Alvarez) completed pouring the concrete pile cap at the Centrifuge Building and has continued forming and tying rebar for the foundation. They have begun digester blower piping installation and new headworks water supply piping installation. The new electrical building foundation and floor slab have been poured and metal framing has begun. S&S has continued ductbank installation from the new electrical building to the Blower Building, Headworks, SBR basins, FRP shelter and UV area. All temporary headworks bypass pumps and piping are in place and have been tested. Alvarez backfilled the area around the Centrifuge Building and Electrical Building.
- The Contractor plans to complete metal framing construction at the Electrical Building and pour the foundation for the Centrifuge Building. They also plan to replace the headworks screen and washer compactor.
- The current contract times for final completion is September of 2024. Alvarez reported that they are still currently about 1-2 months behind schedule due to equipment lead times.
- There have been several credits and minor change order additions this past month. No formal change order has been prepared at this time.
- GD&F RPR, Dave Gustkey, continues to be present on site full time and coordinate efforts between Alvarez, CTUB, Specialized and City building inspector personnel.
- GD&F has received 120 submittals to date, 4 are currently outstanding. 32 requests for information (RFI's) have been answered and 11 Work Change Directives have been issued.
- The next Progress Meeting is scheduled for July 6.
- Alvarez submitted Application for Payment No. 8 in the amount of $872,756.88, which included payment for several major stored equipment items. This Application has been reviewed and approved by GD&F. This Application is presented in Resolution No. 008.
- See below for construction progress photos.

Charles Town Water Plant Intake VFD Project

- S&S has completed the wiring and conduit portion of the new VFDs. They are currently waiting on delivery and installation of the new telemetry system (lead time unknown).

EPA Administrative Order

- GD&F has been assisting CTUB as needed with compliance reports, scheduling and project updates in regard to the EPA Administrative Order.

Potomac Farms Water System Evaluation

- GD&F completed a draft evaluation of the Potomac Farms Water System this past month.

Kings Crossing Sewer Tie-in at Water Plant

- GD&F will be working on the design of a new pump station and forcemain which will convey water treatment plant process sludge/solids to a new sewer extension across the road at Kings Crossing. This will eliminate the hauling of solids.



Centrifuge Building Foundation



Formwork and Ductbanks at New Electrical Building



New Electrical Building Foundation and Walls

GD&F
GWIN
DOBSON &
FOREMAN
ENGINEERS

FIRE HYDRANT FLUSHING LOCATION MAP

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71

Waterline

Hydrants

165 HYDRANTS FLUSHED IN 2023 AS OF 6/21/23

N

Charles Town Water Department
Revenue & Expense Summary
5/31/2023

Annual Budget		Y-T-D Budget	Y-T-D Actual	Difference
	REVENUES			
2,640,000	Metered Sales - Residential	2,420,000	2,385,043	(34,957)
1,320,000	Metered Sales - Commercial	1,210,000	1,185,709	(24,291)
100,000	Metered Sales - Glen Haven/Cavaland	91,667	85,666	(6,001)
20,000	Sale for Resale - Bulk Water	18,333	15,712	(2,621)
80,000	Forfieted Discounts	73,333	70,816	(2,518)
35,000	Misc. Service Rev - Reconnection / Tap Fees	32,083	31,840	(243)
550,000	Tank Lot Rental Income (Non-Operating)	504,167	549,522	45,356
20,000	Interest Income (Non-Operating)	18,333	19,773	1,440
15,000	Sinking Fund Income (Non-Operating)	13,750	12,747	(1,003)
65,000	Miscellaneous Income (Non-Operating)	59,583	23,519	(36,065)
0	Grant Revenue - OEHS (Non-Operating)	-	11,080	11,080
0	CIF & CAC Revenue (Non-Operating)	-	1,190,395	1,190,395
0	Gain of Sale on Assets	-	14,005	14,005
0	Checking Acct @ 6/30/22	-	635,062	635,062
4,845,000	**TOTAL REVENUES**	4,441,250	6,230,888	1,789,638
	EXPENSES			
15,000	WS - Materials & Supplies Expense	13,750	3,133	(10,617)
20,000	WS - Maint of Water Source	18,333	13,197	(5,136)
360,000	WT - Salaries & Wages - Operations Labor	330,000	322,200	(7,800)
140,000	WT - Power & Fuel	128,333	127,782	(552)
8,000	WT - Power & Fuel - GH/CAV	7,333	7,463	129
170,000	WT - Chemical Expense	155,833	146,398	(9,435)
55,000	WT - Testing	50,417	53,434	3,017
20,000	WT - Materials & Supplies Expense	18,333	24,384	6,051
4,000	WT - Materials & Supplies Expense - GH/CAV	3,667	3,494	(173)
38,000	WT - Sludge Hauling	34,833	34,591	(243)
90,000	WT - Maint of Water Treatment Plant	82,500	69,198	(13,302)
5,000	WT - Maint of Water Plant - GH/CAV	4,583	1,579	(3,004)
34,000	WT - Licenses & Subscriptions	31,167	25,500	(5,667)
390,000	TD - Salaries & Wages - Maintenace Labor	357,500	366,269	8,769
20,000	TD - Materials & Supplies Expense	18,333	18,106	(227)
60,000	TD - Maint of Dist Reservior & Standpipes	55,000	19,452	(35,548)
120,000	TD - Maint of Mains	110,000	109,744	(256)
150,000	TD - Maint of Services	137,500	178,205	40,705
200,000	TD - Maint of Meters	183,333	152,449	(30,884)
20,000	TD - Maint of Hydrants	18,333	16,209	(2,124)
170,000	CA - Salaries & Wages	155,833	153,414	(2,420)
40,000	CA - Billing Expense	36,667	34,523	(2,143)
64,500	CA - Licenses & Subscriptions (includes Sensus)	59,125	45,261	(13,864)
10,000	CA - Bad Debt Expense	9,167	3,076	(6,090)
125,000	GA - Salaries & Wages	114,583	106,440	(8,144)
2,500	GA - Director Compensation	2,292	2,175	(117)

Charles Town Water Department
Revenue & Expense Summary
5/31/2023

170,000	GA - Employee Insurance & Benefits	155,833	148,511	(7,322)
93,000	GA - Employee Pension Expense	85,250	78,930	(6,320)
83,000	GA - Payroll Taxes - FICA Tax Expense	76,083	73,327	(2,756)
12,000	GA - OPEB (other post empl. benefits)	11,000	10,897	(103)
18,000	GA - Employee 457 Expense	16,500	16,366	(134)
60,000	GA - Office Supplies & Expense	55,000	69,509	14,509
18,000	GA - Computer - Technology Expense	16,500	14,473	(2,027)
15,000	GA - Maint. of General Property	13,750	13,990	240
20,000	GA - Licenses & Subscriptions	18,333	8,655	(9,679)
15,000	GA - Contractual Services - Engineering	13,750	12,395	(1,355)
25,000	GA - Contractual Services - Accounting	22,917	17,178	(5,739)
30,000	GA - Contractual Services - Legal	27,500	25,696	(1,804)
20,000	GA - Contractual Services - Other	18,333	19,359	1,026
15,000	GA - Rental of Building	13,750	15,075	1,325
75,000	GA - Transportation Expense	68,750	68,198	(552)
80,000	GA - Insurance	73,333	74,916	1,583
35,000	GA - Worker's Comp	32,083	32,896	812
20,000	GA - Regulatory Commission Expense	18,333	3,269	(15,064)
10,000	GA - Misc. General Expense	9,167	7,537	(1,630)
6,000	GA - Bond Administration Fees	5,500	4,005	(1,495)
445,000	Interest on Long Term Debt (Non-Operating)	407,917	331,858	(76,058)
1,165,000	Depreciation Expense (Non-Cash)	1,067,917	1,067,917	0
78,000	Amortization Expense (Non-Cash)	71,500	71,500	-
4,839,000	**TOTAL EXPENSES**	4,435,750	4,224,132	(211,618)

6,000	Excess (Deficit)	5,500	2,006,756	
	Reconciliation to Cash:			
	Cash Balance @ 6/30/22		635,062	
	Disbursements To Date		(5,074,660)	
	Expenses		4,224,132	
	Deposits To Date		5,104,513	
	Revenues		(6,230,888)	
	CASH BALANCE @ 5/31/2023		664,916	
			664,916	Water Operating
			0	
	Water Capacity Improvement Fees		3,959,704	
	Water Renewal & Replacement		809,086	
	Water Working Capital Fund		384,644	

Charles Town Sewer Department
Revenue & Expense Summary
5/31/2023

Annual Budget		Y-T-D Budget	Y-T-D Actual	Difference
	REVENUES			
2,400,000	CTUB Service Revenue	2,200,000	2,169,415	(30,585)
1,400,000	Ranson Revenue	1,283,333	1,257,488	(25,845)
2,500,000	JCPSD Revenue	2,291,667	2,274,274	(17,393)
40,000	Customer Forfieted Discounts	36,667	36,800	133
29,000	Customer Forfieted Discounts- RA	26,583	26,316	(267)
50,000	Customer Forfieted Discounts- PSD	45,833	44,628	(1,205)
25,000	Misc. Sewer Revenues (Non-Operating)	22,917	32,192	9,275
0	CIF & CAC Revenues (Non-Operating)	-	1,150,499	1,150,499
25,000	Interest Income (Non-Operating)	22,917	28,269	5,352
86,000	Sinking Fund Income (Non-Operating)	78,833	125,600	46,767
0	Gain on Sale of Assets (Non-Operating)	-	37,159	37,159
0	Checking Acct @ 6/30/22	-	2,351,976	2,351,976
6,555,000	**TOTAL REVENUES**	6,008,750	9,534,616	3,525,866
	EXPENSES			
20,000	CS - Materials & Supply Expense	18,333	11,939	(6,394)
50,000	CS - Maint of Service Connections	45,833	61,243	15,409
220,000	CS - Maint of Collecting & Trans. Mains	201,667	158,728	(42,939)
325,000	PS - Salaries & Wages	297,917	290,354	(7,562)
135,000	PS - Power & Fuel	123,750	116,037	(7,713)
25,000	PS - Supplies & Expense	22,917	16,768	(6,149)
35,000	PS - Sludge Hauling	32,083	33,750	1,667
200,000	PS - Maint of Pump Stations	183,333	107,872	(75,462)
275,000	TD - Salaries & Wages	252,083	254,392	2,308
135,000	TD - Power - CT Plant	123,750	126,019	2,269
90,000	TD - Power - TUI	82,500	83,333	833
10,000	TD - Power - Deerfield	9,167	5,741	(3,425)
175,000	TD - Chemical Expense - CT	160,417	163,243	2,826
20,000	TD - Chemical Expense - TUI	18,333	6,977	(11,357)
35,000	TD - Testing - CT	32,083	26,744	(5,339)
12,000	TD - Testing - TUI	11,000	12,861	1,861
80,000	TD - Supplies & Expense	73,333	58,982	(14,351)
4,000	TD - Sludge Hauling - CT	3,667	4,703	1,036
13,000	TD - Sludge Hauling - TUI	11,917	16,883	4,966
110,000	TD - Maint. Burns Farm	100,833	104,357	3,524
275,000	TD - Maint. Treatment Plant - CT	252,083	163,238	(88,846)
90,000	TD - Maint. Treatment Plant - TUI	82,500	99,511	17,011
15,000	TD - Maint. Treatment Plant - Deerfield	13,750	1,627	(12,123)
214,000	CA - Billing & Acct Labor	196,167	192,773	(3,394)
95,000	CA - Billing Expense	87,083	81,118	(5,966)
30,000	CA - Licenses & Subscriptions	27,500	18,885	(8,615)
15,000	CA - Bad Debt Expense	13,750	11,616	(2,134)
200,000	GA - Salaries & Wages	183,333	177,993	(5,340)
2,500	GA - Director Compensation	2,292	2,175	(117)

Charles Town Sewer Department
Revenue & Expense Summary
5/31/2023

170,000	GA - Employee Insurance & Benefits	155,833	147,155	(8,678)
92,000	GA - Employee Pension Expense	84,333	77,229	(7,104)
79,000	GA - Payroll Taxes - FICA Tax Expense	72,417	70,239	(2,178)
12,000	GA - OPEB (other post empl. benefits)	11,000	10,383	(617)
16,000	GA - Employee 457 Expense	14,667	14,923	257
75,000	GA - Office Supplies & Expense	68,750	73,373	4,623
18,000	GA - Computer - Technology Expense	16,500	13,204	(3,296)
30,000	GA - Maint. of General Property	27,500	16,560	(10,940)
20,000	GA - Licenses & Subscriptions	18,333	5,977	(12,357)
35,000	GA - Contractual Services - Engineering	32,083	22,762	(9,322)
50,000	GA - Contractual Services - Accounting	45,833	38,228	(7,605)
250,000	GA - Contractual Services - Legal	229,167	202,572	(26,595)
25,000	GA - Contractual Services - Other	22,917	25,313	2,396
15,000	GA - Rental of Building	13,750	15,075	1,325
85,000	GA - Transportation Expense	77,917	75,124	(2,793)
110,000	GA - Insurance	100,833	73,986	(26,847)
32,000	GA - Worker's Comp	29,333	30,365	1,032
30,000	GA - Regulatory Commission Expense	27,500	7,115	(20,385)
10,000	GA - Misc. General Expense	9,167	8403	(764)
60,000	GA - Bond Administration Fees	55,000	37,401	(17,599)
0	Loss on Disposition of Assets	45,671	45,671	-
325,000	Interest on Long Term Debt (Non-Operating)	297,917	153,791	(144,126)
1,985,000	Depreciation Expense (Non-Cash)	1,819,583	1,819,583	(0)
57,000	Amortization Expense (Non-Cash)	52,250	52,250	-
0	Bond Issuance Costs (Non-Operating)	-	192,863	192,863
6,486,500	**TOTAL EXPENSES**	5,991,630	5,639,406	(545,086)
68,500	**Excess (Deficit)**	17,120	3,895,210	
	Reconciliation to Cash:			
	Cash Balance @ 6/30/22		2,351,976	
	Disbursements To Date		(8,354,431)	
	Expenses		5,639,406	
	Deposits To Date		8,223,541	
	Revenues		(9,534,616)	
	CASH BALANCE 5/31/2023		2,221,087	
			2,221,087	Sewer Operating
			0	
	Sewer Capacity Improvement Fees		4,838,676	
	Sewer Renewal & Replacement		801,881	
	Sewer Working Capital Fund		707,814	

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT
WV WATER DEVELOPMENT AUTHORITY	#2017-175 INFRSTRCTR FNDPR	SEWER FUND	NON-DEPARTMENTAL	946.77
			TOTAL:	946.77

FUND TOTALS	
50 WATER FUND	6,296.05
60 SEWER FUND	36,803.63
GRAND TOTAL:	43,099.68

TOTAL PAGES: 2

APPROVED BY: _____

APPROVED BY: _____

This Packet:	$ 43,099.68
Security Deposit Refunds:	4,131.71
Crystal Springs, check dated 5/24/2023:	297.17
Apple Valley Tire, check dated 5/24/2023:	1,418.16
C&S Wet Tapping, check dated 5/24/2023:	600.00
Core & Main, check dated 5/24/2023:	12,505.14
Gaskins Services LLC, check dated 5/24/2023:	1,050.00
KM Electrical Solutions, check dated 5/24/2023:	4,025.00
McKinney's Auto Repair, check dated 5/24/2023:	405.54
Steptoe & Johnson PLLC, check dated 5/24/2023:	532.75
Trenchtech Inc, check dated 5/24/2023:	375.00
Alvarez Contractors Inc, check dated 5/30/2023:	1,068,229.84
Total:	$1,136,669.99

Note:

Highlighted is for R&R Project

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
KEVIN B GROVE	MTNVW DNR SWR LATERAL	SEWER FUND	SEWER		3,720.00
				TOTAL:	3,720.00
JP & RF BURNS PARTNERSHIP	MAY LOADS - 57	SEWER FUND	SEWER		10,203.00
				TOTAL:	10,203.00
DEPT OF ENVIRONMENTAL PROTECTION	WWTP LAB CERT RNWL 2023-20	SEWER FUND	SEWER		80.00
				TOTAL:	80.00
FRONTIER COMMUNICATIONS	304-876-9970-121914-4	WATER FUND	WATER		111.50
	304-876-2120-111514-4	WATER FUND	WATER		111.50
				TOTAL:	223.00
METLIFE, INC	AD&D PAYABLE	WATER FUND	WATER		9.06
	LIFE PAYABLE	WATER FUND	WATER		43.80
	LTD PAYABLE	WATER FUND	WATER		294.89
	STD PAYABLE	WATER FUND	WATER		313.62
	AD&D PAYABLE	SEWER FUND	SEWER		8.92
	LIFE PAYABLE	SEWER FUND	SEWER		43.20
	LTD PAYABLE	SEWER FUND	SEWER		276.56
	STD PAYABLE	SEWER FUND	SEWER		294.98
				TOTAL:	1,285.03
SPRINT	MONTHLY CELL SERVICE	WATER FUND	WATER		149.90
	MONTHLY CELL SERVICE	SEWER FUND	SEWER		667.19
				TOTAL:	817.09
TIAA COMMERCIAL FINANCE, INC	COPIER	SEWER FUND	NON-DEPARTMENTAL		3,194.55
	COPIER	SEWER FUND	SEWER		549.45
				TOTAL:	3,744.00
U.S. BANK	PCARD 9146	WATER FUND	WATER		1,363.55
	PCARD 9146	WATER FUND	WATER		864.50
	PCARD 9146	WATER FUND	WATER		51.48
	PCARD 9146	WATER FUND	WATER		1,239.07
	PCARD 9146	WATER FUND	WATER		1,581.07
	PCARD 9146	WATER FUND	WATER		96.25
	PCARD 9146	WATER FUND	WATER		65.86
	PCARD 9146	SEWER FUND	SEWER		1,405.03
	PCARD 9146	SEWER FUND	SEWER		864.50
	PCARD 9146	SEWER FUND	SEWER		1,409.94
	PCARD 9146	SEWER FUND	SEWER		732.91
	PCARD 9146	SEWER FUND	SEWER		7,952.58
	PCARD 9146	SEWER FUND	SEWER		45.12
	PCARD 9146	SEWER FUND	SEWER		877.79
	PCARD 9146	SEWER FUND	SEWER		815.80
	PCARD 9146	SEWER FUND	SEWER		10.05
	PCARD 9146	SEWER FUND	SEWER		2,292.61
	PCARD 9146	SEWER FUND	SEWER		96.25
	PCARD 9146	SEWER FUND	SEWER		116.43
				TOTAL:	21,880.79
WV BUREAU OF PUBLIC HEALTH	S.FARIAS CLSS C WW CERT	SEWER FUND	SEWER		100.00
	A.HALE CLSS C WW CERT	SEWER FUND	SEWER		100.00
				TOTAL:	200.00

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
	PUMP & ROLLER ASSMBLY	WATER FUND	WATER		1,542.97
	TUBING	WATER FUND	WATER		31.95
	TNT 835, TNT 832	SEWER FUND	SEWER		642.68
	ELECTRODE, PHOSVER	SEWER FUND	SEWER		1,044.90
				TOTAL:	4,589.83
VITAL SIGNS	RESTRICTED AREA SIGNS	WATER FUND	WATER		167.50
	BUSINESSCARDS, WETPAINT SI	WATER FUND	WATER		168.00
	RESTRICTED AREA SIGNS	SEWER FUND	SEWER		167.50
	BUSINESSCARDS, WETPAINT SI	SEWER FUND	SEWER		59.95
	SWR INSPCTN DECALS, PS SIG	SEWER FUND	SEWER		210.00
				TOTAL:	772.95
WAKEFIELD & ASSOCIATES INC	MAY COLLECTIONS	WATER FUND	WATER		54.04
	MAY COLLECTIONS	SEWER FUND	SEWER		54.04
				TOTAL:	108.08
XYLEM WATER SOLUTIONS U.S.A., INC.	BLCKWTR SOLUTN HOSE W/FITT	SEWER FUND	SEWER		2,244.80
				TOTAL:	2,244.80
ZETA SOLUTIONS, LLC	KEMIRA PAX-XL8	WATER FUND	WATER		12,463.20
				TOTAL:	12,463.20

========== FUND TOTALS ==========	
50 WATER FUND	180,812.29
60 SEWER FUND	1,063,849.40
GRAND TOTAL:	1,244,661.69

TOTAL PAGES: 7

APPROVED BY: _____

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This Packet: $ 1,244,661.69

Security Deposit Refunds: 37.07

CTUB (for Change Order#1): 498,183.42

City of Ranson: 6,500.00

Total: $ 1,749,382.18

Note:

Highlighted are for the R&R Project;

Highlighted is to be reimbursed with Capacity Improvement Fees

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT
			TOTAL:	1,450.66
SOVOS COMPLIANCE, LLC	RPTG UNCLMD PRP ANNUAL	WATER FUND	WATER	350.04
	RPTG UNCLMD PRP ANNUAL	SEWER FUND	SEWER	350.04
			TOTAL:	700.08
STH, INC.	ORCHRDHLLS PS	SEWER FUND	SEWER	460.00
			TOTAL:	460.00
SVG COMMERCIAL CLEANING LLC	CLEANING 5/02 - 5/30/23	WATER FUND	WATER	419.99
	CLEANING 5/02 - 5/30/23	WATER FUND	WATER	60.00
	CLEANING 5/02 - 5/30/23	SEWER FUND	SEWER	479.98
	CLEANING 5/02 - 5/30/23	SEWER FUND	SEWER	60.00
			TOTAL:	1,019.97
GERALD TAYLOR CO., INC.	VAC / TRANSPORT	WATER FUND	WATER	672.33
	PUMP / TRANSPORT	WATER FUND	WATER	831.26
	VAC / TRANSPORT	WATER FUND	WATER	293.91
	VAC / TRANSPORT	WATER FUND	WATER	167.76
	PUMP / TRANSPORT	WATER FUND	WATER	557.54
	PUMP / TRANSPORT	WATER FUND	WATER	790.93
	PUMP / TRANSPORT	WATER FUND	WATER	187.42
	PUMP / TRANSPORT	WATER FUND	WATER	822.17
	TRANSPORT	SEWER FUND	SEWER	2,623.50
	TRANSPORT	SEWER FUND	SEWER	839.52
	SUPERVAC	SEWER FUND	SEWER	2,047.96
	TRANSPORT	SEWER FUND	SEWER	1,247.40
			TOTAL:	11,081.70
THE CI THORNBURG CO, INC.	SRII TRPL ELECTRC HOUSNG	WATER FUND	WATER	5,564.80
	MXU SNGLE PRT TRNSCVR	WATER FUND	WATER	5,373.00
	CHLORINE	WATER FUND	WATER	2,585.00
	SRII TRL ELECT HSNG	WATER FUND	WATER	6,956.00
			TOTAL:	20,478.80
TRENCHTECH, INC	BUILD-A-BOX PARTS	WATER FUND	WATER	3,012.58
	STEEL PLATES	SEWER FUND	SEWER	1,048.10
	BUILD-A-BOX PARTS	SEWER FUND	SEWER	3,012.59
			TOTAL:	7,073.27
ARIZONA DEPARTMENT OF REVENUE	UNCLAIMED PROPERTY RY 2023	WATER FUND	NON-DEPARTMENTAL	48.64
			TOTAL:	48.64
COMPTROLLER OF MD	UNCLAIMED PROPERTY RY 2023	WATER FUND	NON-DEPARTMENTAL	19.42
			TOTAL:	19.42
TREASURER OF VIRGINIA	UNCLAIMED PROPERTY RY 2023	WATER FUND	NON-DEPARTMENTAL	472.08
			TOTAL:	472.08
FLORIDA DEPT OF FINANCIAL SERVICES	UNCLAIMED PROPERTY RY 2023	WATER FUND	NON-DEPARTMENTAL	1.80
			TOTAL:	1.80
WEST VIRGINIA STATE TREASURER'S OFFICE	UNCLAIMED PROPERTY RY 2023	WATER FUND	NON-DEPARTMENTAL	1,775.98
			TOTAL:	1,775.98
HD SUPPLY INC	MISC FOR WTP	WATER FUND	WATER	1,327.33

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT
MISS UTILITY OF WV, INC.	MESSAGE FEES: MAY	WATER FUND	WATER	403.20
			TOTAL:	403.20
THOMAS NALLS	MAY TANK LOT RENT	WATER FUND	NON-DEPARTMENTAL	3,832.91
			TOTAL:	3,832.91
PACE ANALYTICAL SERVICES, LLC	TESTING: CT QRTLY	SEWER FUND	SEWER	324.60
	TESTING: TUSC WKLY	SEWER FUND	SEWER	135.80
	TESTING: CT WKLY	SEWER FUND	SEWER	225.70
	TESTING: TUSC WKLY	SEWER FUND	SEWER	135.80
	TESTING: TUSC WKLY	SEWER FUND	SEWER	103.20
	TESTING: CT WKLY	SEWER FUND	SEWER	225.70
	TESTING: CT	SEWER FUND	SEWER	245.50
	TESTING: CT STRMWTR	SEWER FUND	SEWER	212.80
	TESTING: TUSC WKLY	SEWER FUND	SEWER	144.00
	TESTING: WV0022349/0001 MN	SEWER FUND	SEWER	300.30
	TESTING: TUSC MNTHLY	SEWER FUND	SEWER	428.30
	TESTING: CT WKLY	SEWER FUND	SEWER	225.70
	TESTING: TUSC WKLY	SEWER FUND	SEWER	135.80
	TESTING: RCKWL MNTHLY	SEWER FUND	SEWER	356.80
			TOTAL:	3,200.00
POLY COATING SOLUTIONS LLC	MANHOLE REHAB MTNVW DNR	SEWER FUND	SEWER	5,010.00
			TOTAL:	5,010.00
PUMPMAN PITTSBURGH	INSTRUMENT STARTUP SERVICE	SEWER FUND	SEWER	1,500.00
			TOTAL:	1,500.00
CORPORATION OF RANSON	MAY UT COLLECTIONS	WATER FUND	NON-DEPARTMENTAL	3,764.23
			TOTAL:	3,764.23
RK & K ENGINEERS	TO9 & TO10 & TO11: WTRLN E	WATER FUND	WATER	3,397.95
	TO19 2021 CLLCTNSYSTM PRJC	SEWER FUND	NON-DEPARTMENTAL	1,747.30
	TO22 GRNFLD FRC MN UPGRDS	SEWER FUND	NON-DEPARTMENTAL	11,190.02
			TOTAL:	16,335.27
ROSS H BARE	TWWTP SVCCLL HNYWLLFREALRM	SEWER FUND	SEWER	1,320.00
	TWWTP SVC CALL & REPAIR	SEWER FUND	SEWER	2,197.96
			TOTAL:	3,517.96
SG PLUMBING, INC.	244 BEAUREGARD BLVD	WATER FUND	WATER	2,575.00
	101 N GEORGE ST	WATER FUND	WATER	2,475.00
	637 JEFFERSON AVE	WATER FUND	WATER	1,350.00
	113 W NORTH ST	SEWER FUND	SEWER	2,300.00
			TOTAL:	8,700.00
SHENANDOAH AIR CONDITIONING & HEATING,	AC RPR WTP	WATER FUND	WATER	422.10
	BRDCNSR FAN SVC WTP	WATER FUND	WATER	655.00
			TOTAL:	1,077.10
SHENANDOAH SALES & SERVICE, INC.	WATER VEHICLE SERVICE	WATER FUND	WATER	246.32
	WATER VEHICLE SERVICE	WATER FUND	WATER	542.74
	SEWER VEHICLE SERVICE	SEWER FUND	SEWER	217.50
	SEWER VEHICLE SERVICE	SEWER FUND	SEWER	182.15
	SEWER VEHICLE SERVICE	SEWER FUND	SEWER	90.98
	SEWER VEHICLE SERVICE	SEWER FUND	SEWER	170.97

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
	KTOCHEMKEY,MONO-CHLOR,AMMO	WATER FUND	WATER		1,566.00
	EE DR300	WATER FUND	WATER		628.00
				TOTAL:	2,407.00
HOLTZMAN OIL CORP	CHEVRON RANDO	SEWER FUND	SEWER		341.64
				TOTAL:	341.64
PROTOUCH COMMUNICATIONS, LLC	MAY SVCS: AFTER-HRS EMERGE	WATER FUND	WATER		109.08
	MAY SVCS: AFTER-HRS EMERGE	SEWER FUND	SEWER		109.08
				TOTAL:	218.16
INWOOD QUARRY, INC.	CI, I8, I10 PICKUPS: 5/24/	WATER FUND	WATER		438.11
	CI, I8, I10 PICKUPS: 5/24/	WATER FUND	WATER		438.10
	C1, I10, 18 PICKUPS: 6/6/2	WATER FUND	WATER		592.44
	C1, I10, 18 PICKUPS: 6/6/2	WATER FUND	WATER		592.45
	CI, I8, I10 PICKUPS: 5/24/	SEWER FUND	SEWER		638.15
	C1, I10, 18 PICKUPS: 6/6/2	SEWER FUND	SEWER		304.21
				TOTAL:	3,003.46
IRON MOUNTAIN, INC	SHREDDING, STORAGE	WATER FUND	WATER		461.74
	SHREDDING, STORAGE	SEWER FUND	SEWER		461.75
				TOTAL:	923.49
JAMES RIVER EQUIPMENT	RPR EXCVTR WNDW	SEWER FUND	SEWER		1,354.22
	FT4/ROPS/365-70R18	SEWER FUND	SEWER		1,113.41
				TOTAL:	2,467.63
JEFFERSON UTILITIES, INC	READINGS/SHUTOFFS MAY	SEWER FUND	SEWER		1,364.20
				TOTAL:	1,364.20
KAY CASTO & CHANEY PLLC	NALLS: THRU 5/31/23	WATER FUND	WATER		1,549.00
	GENERAL: THRU 5/31/23	WATER FUND	WATER		292.50
	LCSTHLL: THRU 5/31/23	WATER FUND	WATER		178.75
	CLLCTNSYSTM: THRU 5/31/23	SEWER FUND	NON-DEPARTMENTAL		1,137.50
	PSC RPRSNT: THRU 5/31/23	SEWER FUND	SEWER		276.00
	GENERAL: THRU 5/31/23	SEWER FUND	SEWER		292.50
	LCSTHLL: THRU 5/31/23	SEWER FUND	SEWER		178.75
	ASPNGRN: THRU 5/31/23	SEWER FUND	SEWER		1,040.00
				TOTAL:	4,945.00
LONG FENCE INC	FENCE 842 S GEORGE ST	SEWER FUND	SEWER		12,830.00
				TOTAL:	12,830.00
MATT LOPORTO	PER DIEM 7/17 - 7/21/23	SEWER FUND	SEWER		280.25
				TOTAL:	280.25
MCKINNEY'S AUTO REPAIR	SEWER VEHICLE SERVICE	SEWER FUND	SEWER		611.37
	SEWER VEHICLE SERVICE	SEWER FUND	SEWER		1,580.15
				TOTAL:	2,191.52
DONALD MICKEY	5/25,5/26 MWNG SMMTPT& PLY	WATER FUND	WATER		137.50
	5/27 MWNG SMMTPT & PLYGRND	WATER FUND	WATER		50.00
	5/25,5/26 MWNG SMMTPT& PLY	SEWER FUND	SEWER		137.50
	5/27 MWNG SMMTPT & PLYGRND	SEWER FUND	SEWER		50.00
				TOTAL:	375.00

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT
	NPPL, 304SS, SSRDCR	SEWER FUND	SEWER	149.57
			TOTAL:	35,798.19
COYNE CHEMICAL	AMMONIUM SULFATE 40% NSF	WATER FUND	WATER	1,526.20
	CP - 837	WATER FUND	WATER	2,727.87
	ZETAG 8868 FS	SEWER FUND	SEWER	10,225.89
			TOTAL:	14,479.96
CRYSTAL SPRINGS	MNTHLY SVC@ 661 & 842	WATER FUND	WATER	178.19
	MNTHLY SVC@ 661 & 842	SEWER FUND	SEWER	100.24
			TOTAL:	278.43
D.R. HORTON, INC.	SEWER UPSIZING PER AMEA	SEWER FUND	NON-DEPARTMENTAL	7,500.00
			TOTAL:	7,500.00
WV DEPT OF HEALTH & HUMAN SERVICES	FLOURIDE TEST	WATER FUND	WATER	15.00
	BACTERIOLOGICAL TEST	WATER FUND	WATER	100.00
	BACTERIOLOGICAL TEST	WATER FUND	WATER	140.00
	BACTERIOLOGICAL TEST	WATER FUND	WATER	140.00
	BACTERIOLOGICAL TEST	WATER FUND	WATER	100.00
			TOTAL:	495.00
FREDERICKTOWNE LABS INC	TESTING	SEWER FUND	SEWER	152.00
	TESTING	SEWER FUND	SEWER	152.00
	TESTING	SEWER FUND	SEWER	76.00
	TESTING	SEWER FUND	SEWER	76.00
	TESTING	SEWER FUND	SEWER	76.00
			TOTAL:	532.00
GUTTMAN ENERGY	W/E 5/21/23	WATER FUND	WATER	733.50
	W/E 5/28/23	WATER FUND	WATER	408.76
	W/E 6/04/23	WATER FUND	WATER	524.70
	W/E 6/11/23	WATER FUND	WATER	596.12
	W/E 6/18/23	WATER FUND	WATER	1,428.71
	W/E 5/21/23	SEWER FUND	SEWER	884.21
	W/E 5/21/23	SEWER FUND	SEWER	30.44
	W/E 5/28/23	SEWER FUND	SEWER	858.41
	W/E 5/28/23	SEWER FUND	SEWER	62.39
	W/E 6/04/23	SEWER FUND	SEWER	678.36
	W/E 6/11/23	SEWER FUND	SEWER	789.48
	W/E 6/11/23	SEWER FUND	SEWER	34.31
	W/E 6/18/23	SEWER FUND	SEWER	1,379.09
			TOTAL:	8,408.48
GWIN DOBSON & FOREMAN INC	WA RETAINER SVCS	WATER FUND	WATER	449.80
	WA RETAINER SVCS	WATER FUND	WATER	876.20
	WWTP UPGRADES	SEWER FUND	NON-DEPARTMENTAL	8,380.24
	WWTP UPGRADES	SEWER FUND	NON-DEPARTMENTAL	14,568.63
	WW RETAINER SVCS	SEWER FUND	SEWER	977.60
			TOTAL:	25,252.47
GRANICUS	YRLY RNWL 7/24/23 - 7/23/2	WATER FUND	WATER	4,718.94
	YRLY RNWL 7/24/23 - 7/23/2	SEWER FUND	SEWER	4,718.93
			TOTAL:	9,437.87
HACH COMPANY	ORTHOPHOSPHATE	WATER FUND	WATER	213.00

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
BIEDLER'S ELECTRIC MOTOR REPAIR, INC.	PARK PS BELTS	SEWER FUND	SEWER		133.80
	MOUNTAINEER PS REPAIR	SEWER FUND	SEWER		101.72
	KSB PUMP REPAIR	SEWER FUND	SEWER		1,094.74
	KSB PUMP REPAIR	SEWER FUND	SEWER		1,394.70
	KSB NEW PUMP	SEWER FUND	SEWER		7,000.00
				TOTAL:	9,724.96
CARMEUSE LIME & STONE	HYDRATE CHEMICAL BULK	SEWER FUND	SEWER		5,929.14
	HYDRATE CHEMICAL BULK	SEWER FUND	SEWER		2,335.00-
	HYDRATE CHEMICAL BULK	SEWER FUND	SEWER		408.17
				TOTAL:	4,002.31
CHAMPION INDUSTRIES, INC	PRINTING SVCS MAY	WATER FUND	WATER		1,286.46
	POSTAGE 4 PRINTING SVCS MA	WATER FUND	WATER		2,835.22
	PRINTING SVCS MAY	SEWER FUND	SEWER		1,286.45
	POSTAGE 4 PRINTING SVCS MA	SEWER FUND	SEWER		2,835.21
				TOTAL:	8,243.34
CHARLES TOWN SEWER	MAY FUNDING	SEWER FUND	NON-DEPARTMENTAL		14,155.97
				TOTAL:	14,155.97
CHARLES TOWN WATER	MAY FUNDING	WATER FUND	NON-DEPARTMENTAL		10,577.23
				TOTAL:	10,577.23
CHS TRAFFIC CONTROL SERVICES, INC.	NEW SERVICE	SEWER FUND	SEWER		7,215.00
				TOTAL:	7,215.00
CITY ELECTRIC SUPPLY CO	FINDERS ICECUBE RELAY	SEWER FUND	SEWER		104.85
				TOTAL:	104.85
CITY NATIONAL BANK	LOCKBOX SVCS: MAY	WATER FUND	WATER		144.52
	LOCKBOX SVCS: MAY	SEWER FUND	SEWER		144.52
				TOTAL:	289.04
CITY OF CHARLES TOWN	UB COLLECTIONS MAY	WATER FUND	NON-DEPARTMENTAL		17,094.16
				TOTAL:	17,094.16
CORE & MAIN	B62B3'DOB5-1/43WAYNSF6"MJS	WATER FUND	WATER		9,300.00
	VLV XRSR DLX PCKG	WATER FUND	WATER		6,602.45
	METER IDLER	WATER FUND	WATER		336.30
	PE TUBING, SS INSERT	WATER FUND	WATER		1,056.00
	SAD DBL SS BAND EPXYCOATED	WATER FUND	WATER		160.69
	CPLG, RDCR, BLLCRB, BRSSBS	WATER FUND	WATER		1,644.45
	BRSBRSHNG,PVCSDR35,314-254	WATER FUND	WATER		2,877.41
	S70-203 2X3/4CC BRS SAD	WATER FUND	WATER		363.70
	PIPE,BALLCORP,RBBRMTRGSKT,	WATER FUND	WATER		2,523.62
	MTRPTBLLT, FRM&CVR, TBNG	WATER FUND	WATER		3,747.35
	L44-33-NL, C44-34-NL, C84-	WATER FUND	WATER		5,259.60
	BRSSTEE, BRSSBSHNG	WATER FUND	WATER		131.02
	3/4BRSS 90	WATER FUND	WATER		24.00
	BRSS CPLNG	WATER FUND	WATER		38.46
	BRSS RDCR	WATER FUND	WATER		406.71
	CPLG, RDCR, BLLCRB, BRSSBS	SEWER FUND	SEWER		173.94
	BRSBRSHNG,PVCSDR35,314-254	SEWER FUND	SEWER		347.88
	PVC SDR35 SWR 45 GXSP	SEWER FUND	SEWER		474.00
	3-5 MIN SET MS PLUG: 4MTNV	SEWER FUND	SEWER		181.04

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
3RD TIME TRUCKING	MOVE EXCAVATOR	WATER FUND	WATER		135.00
	HAULING STONE	WATER FUND	WATER		431.34
	HAULING STONE	WATER FUND	WATER		863.94
	HAULING STONE	WATER FUND	WATER		430.24
	HAULING STONE	WATER FUND	WATER		1,003.31
	MOVE EXCAVATOR	WATER FUND	WATER		135.00
	MOVE EXCAVATOR	SEWER FUND	SEWER		135.00
	HAULING STONE	SEWER FUND	SEWER		287.56
	HAULING STONE	SEWER FUND	SEWER		143.41
	MOVE EXCAVATOR	SEWER FUND	SEWER		135.00
				TOTAL:	3,699.80
WILLIAM HOAK	PAVING: 5/10/23	WATER FUND	WATER		2,110.00
	PAVING: 5/10/23	WATER FUND	WATER		4,910.00
	PAVING: 5/11/23	WATER FUND	WATER		3,710.00
	PAVING: 5/12/23	WATER FUND	WATER		610.00
	PAVING: 5/23/23	WATER FUND	WATER		6,255.00
	PAVING: 5/10/23	SEWER FUND	SEWER		1,955.00
	PAVING: 5/11/23	SEWER FUND	SEWER		5,110.00
	PAVING: 5/12/23	SEWER FUND	SEWER		5,575.00
	PAVING: 5/22/23	SEWER FUND	SEWER		9,970.00
	PAVING: 5/23/23	SEWER FUND	SEWER		1,530.00
				TOTAL:	41,735.00
ALS GROUP USA CORP	TESTING: GH	WATER FUND	WATER		213.50
	TESTING: PFAS & METALS	WATER FUND	WATER		545.00
				TOTAL:	758.50
ALVAREZ CONTRACTORS, INC	WWTP PROJECT	SEWER FUND	NON-DEPARTMENTAL		872,756.88
				TOTAL:	872,756.88
AMERIGAS	TANK RENTAL: RT9W	SEWER FUND	SEWER		130.30
	TANK RENTAL: WOODLAWN	SEWER FUND	SEWER		130.30
	TANK RENTAL: MOOSE	SEWER FUND	SEWER		130.30
	TANK RENTAL: APPLETREE	SEWER FUND	SEWER		130.30
	TANK RENTAL: CRANES LN	SEWER FUND	SEWER		130.30
	TANK RENTAL: JEFF AVE	SEWER FUND	SEWER		164.65
				TOTAL:	816.15
ANTIETAM ELECTRIAL CONTRACTORS, INC	RPLC DMGD WOODPOLE @ TANK	WATER FUND	WATER		3,855.00
	RAWWTRPMP BREAKER RESET	WATER FUND	WATER		140.00
	TWWTP THERMOSTAT RPLCD	SEWER FUND	SEWER		915.00
				TOTAL:	4,910.00
AUTOZONE	WINSHIELD WASHER FLUID	WATER FUND	WATER		12.86
	ITEMS FOR PS	SEWER FUND	SEWER		4.39
	ITEMS FOR PS	SEWER FUND	SEWER		21.98
				TOTAL:	39.23
B.A. MARTIN CERTIFIED WELDING, LLC	WELDED CASING PIPE NEW LIN	SEWER FUND	SEWER		1,407.59
				TOTAL:	1,407.59
B.E.S. TECHNOLOGY, INC	ANNUAL WEBSITE HOSTING	WATER FUND	WATER		750.00
	ANNUAL WEBSITE HOSTING	SEWER FUND	SEWER		750.00
				TOTAL:	1,500.00

PWS# WV3301905

2022 ANNUAL DRINKING WATER QUALITY REPORT



Introduction

In compliance with the Safe Drinking Water Act Amendments, the **Charles Town Utility Board** (CTUB) is providing its customers with this annual water quality report. This report explains where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The information in this report shows the results of our monitoring for the period of January 1, 2022 to December 31, 2022 or earlier if not on a yearly schedule.

Effective, June 15, 2023, CTUB will no longer be mailing this report to customers, however should you wish to obtain a printed copy, please contact our office and we would be happy to provide one. The 2022 Water Quality Report is available for download at www.ctubwv.com/information/reports/water-documents/consumer-confidence-reports/. Reports from previous years can also be viewed at this location. Please call (304) 725-2316 or send an email to info@ctubwv.com to request a printed copy.

If you have any questions concerning this report, you may contact **Kristen M. Stolipher, (304) 725-2316**. If you have further questions, comments or suggestions, please attend any of our regularly schedule board meetings held on the **2nd and 4th Wednesday** of every month at **4:00 p.m.** in the **Charles Town Utility Board office, at 661 South George Street, Charles Town, WV 25414.** Visit www.ctubwv.com for agendas, minutes, informational items, updates and to sign-up for email notifications.

SOURCE WATER ASSESSEMENT

Your drinking water source is surface water from the Shenandoah River.

A Source Water Assessment was conducted in 2003 by the West Virginia Bureau for Public Health (WVBPH). The intake that supplies drinking water to the Charles Town Utility Board has a higher susceptibility to contamination, due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area.

This does not mean that this intake will become contaminated; only that conditions are such that the surface water could be impacted by a potential contaminant source.

Future contamination may be avoided by implementing protective measures. The source water assessment report is available for review by contacting the WVBPH at (304) 558-2981.

About CTUB



The Charles Town Utility Board was created in 1998 by the City of Charles Town City Council upon the issuance of Combined Waterworks and Sewerage System Revenue Bonds under Article 147 of the Codified Ordinances of the City. The Waterworks and Sewerage System of the City was combined into a single undertaking, the "System". The supervision, management, control and operation of the System is vested in the Charles Town Utility Board.

Our mission is to provide reliable water and sewer services that protect public health and the environment with financial accountability, regional stewardship and superior customer service.

Why must water be treated?

All drinking water contains various amounts and kinds of contaminants. Federal and State regulations establish limits, control and treatment practices to minimize these contaminants and to reduce any subsequent health effects.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.

What is in Your Water?

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits of contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline (800) 426-4791. For additional information about drinking water regulations, visit www.epa.gov/dwstandardsregulations.**

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals, and, in some cases radioactive material and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbes (viruses or bacteria) from septic system, agricultural livestock operations, wildlife and wastewater treatment plants.
- Inorganics, such as salts and metals, which can occur naturally or result from stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides from agriculture, urban runoff and residential uses.
- Organics (like synthetic and volatile organic chemicals) from industrial process and petroleum production, gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, either naturally occurring or the result of oil and gas production or mining activities.



Lead in Drinking Water

WHAT IS THE EPA STANDARD FOR LEAD IN DRINKING WATER?

EPA has established an Action Level for lead in water of 15 parts per billion (ppb). When lead testing is performed as required by EPA, 90 percent of the samples must contain less than 15 ppb. This is referred to as the 90th percentile results being less than 15 ppb.

CTUB has been testing for lead and copper in accordance with EPA's Lead and Copper Rule (LCR) since 1992. **In 2022 the 90th percentile value for lead was non-detect (ND) or <3.14 ppb compared to the EPA action level of 15 ppb.** CTUB currently monitors 30 sites in the system annually. All drinking water contains various amounts and kinds of contaminants. Federal and State regulations establish limits, control and treatment practices to minimize these contaminants and to reduce any subsequent health effects.

WHAT IS THE EPA LEAD AND COPPER RULE REVISION (LCRR)?

Recent EPA Lead and Copper Rule Revisions (LCRR) require all community water system and non-transient non-community water systems to develop a lead service line inventory for all public and private service lines in the distribution system or prove that there are no lead service lines in their jurisdiction by October 16, 2024.

CTUB is working with a consultant to develop this inventory to ensure compliance with the LCRR. Within the next several months, CTUB intends to survey customers in an attempt to obtain critical knowledge of materials and components associated with service lines and home plumbing. This vital information will assist in the compilation of the lead service line inventory. Your participation in the survey is greatly appreciated.

WHAT CAN I DO IN MY HOME TO REDUCE EXPOSURE TO LEAD IN THE DRINKING WATER?

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. CTUB is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components in home construction. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline, at http://www.epa.gov/safewater/lead or you can visit the CTUB website for additional information at www.ctubwv.com/information/reports/water-documents/lead-and-copper/.

WATER QUALITY DATA DEFINITIONS

Maximum Contaminant Level Goal (MCLG): The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The "Maximum Allowed" MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Secondary Maximum Contaminant Level (SMCL): Recommended level for a contaminant that is not regulated and has no MCL.

Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

Treatment Technique (TT): A required process intended to reduce levels of a contaminant in drinking water.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Non-Detects (ND): Lab analysis indicates that the contaminant is not present.

Parts per Million (ppm): Milligrams per liter (mg/l).

Parts per Billion (ppb): Micrograms per liter (µg/l).

Picocuries per Liter (pCi/L): A measure of the radioactivity in water.

Millirems per Year (mrem/yr): Measure of radiation absorbed by the body.

Monitoring Period Average (MPA): An average of sample results obtained during a defined time frame, common examples of monitoring periods are monthly, quarterly and yearly.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for groundwater systems.

Running Annual Average (RAA): An average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.

Locational Running Annual Average (LRAA): Average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

WHAT DO WE TEST FOR?

The Safe Drinking Water Act of 1974 (SDWA), which has been amended most significantly in 1986 and 1996, governs drinking water quality. It sets the limits for contaminants in drinking water. These limits are represented in this report as MCL's or the Maximum Contaminant Levels. Under the SDWA, CTUB is required to test and submit results to the WVBPH for the presence of a number of organisms and chemicals as follows:

- **Bacteriological analysis.** Our system is required to test a minimum of 15 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. Any exceedance of this sampling requires immediate notification by the Utility.

- **Total Trihalomethanes (TTHM's) and Haloacetic Acids (HAA5).** Our system conducts quarterly monitoring of these chemicals. Both of these form in the water supply as chlorine reacts with organic matter. When ingested in large quantities, these chemicals are suspected carcinogens, so we monitor for them closely. CTUB monitors several locations throughout the system.

- **Corrosion control.** (Zinc Orthophosphate and pH) are monitored in the system. By dosing the drinking water with a minimum of 1.5 ppm zinc orthophosphate and maintaining a minimum pH of 7.3, the potential for corrosion of lead, copper and other metals is significantly reduced. CTUB monitors for these corrosion parameters at multiple locations throughout the system.

Water Quality Testing

The tables on the following pages list all of the drinking water contaminants which were detected during the 2022 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1-December 31, 2022. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

WATER QUALITY ANALYSIS AND RESULTS

CTUB constantly monitors various components in the water supply to meet all regulatory requirements. The following tables list only those water quality parameters that are regulated and had some level of detection. If you have any questions on CTUB monitoring parameters, call us at (304) 725-2316.

Regulated Contaminants

Microbiological Contaminants

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Coliform (TCR)						

Inorganic

Contaminant	Collection Date	Highest Value	Range (low/high)	Unit of Measure	MCL	MCLG	Likely Source of Contamination
BARIUM	4/5/2022	0.0267	0.0267	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	4/5/2022	0.74	0.74	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	3/30/2022	1	1	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	3/30/2022	1	1	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Byproducts

Contaminant	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit of Measure	MCL	MCLG	Likely Source of Contamination
TOTAL HALOACETIC ACIDS (HAA5)	147 WEST HALL DRIVE, TUSCAWILLA HILLS	2022	38	0 - 43	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	BOUNDARY STREET	2022	44	20 - 60.07	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	MOOSE LODGE	2022	24	5.47 - 39	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	NORTH WEST MAIN STREET	2022	34	1.42 - 48	ppb	60	0	By-product of drinking water disinfection
TTHM	147 WEST HALL DRIVE, TUSCAWILLA HILLS	2022	43	14 - 88	ppb	80	0	By-product of drinking water chlorination
TTHM	BOUNDARY STREET	2022	42	13 - 84	ppb	80	0	By-product of drinking water chlorination
TTHM	MOOSE LODGE	2022	44	14 - 95	ppb	80	0	By-product of drinking water chlorination
TTHM	NORTH WEST MAIN STREET	2022	41	14 - 83	ppb	80	0	By-product of drinking water chlorination

Contaminant	Monitoring Period	Violation	MPA	MPA Units	RAA	RAA Units	Likely Source of Contamination
Chlorine/Chloramines Maximum Disinfection Level	2022	N	2	mg/l	1.7	mg/l	Water additive used to control microbes

Lead and Copper

Contaminant	Monitoring Period	90th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Likely Source of Contamination
COPPER, FREE	2022	0.0588	0 - 0.162	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2022	3.14	0 - 93.6	ppb	15	1	Corrosion of household plumbing systems; Erosion of natural deposits

Total Organic Carbon Lowest Month for Removal						
Contaminant	Collection Date	Highest Value	Range	Unit	TT	Likely Source of Contamination
CARBON, TOTAL	8/1/2022	3.9	0.8 - 3.9	MG/L	0	Naturally present in the environment

Turbidity							
Contaminant	Violation (Y/N)	Monitoring Period	Highest Value	Unit of Measure	TT Requireme	Facility	Likely Source of Contamination
Turbidity	N	Mar-22	0.28	NTU	In any month, at least 95% of the samples must be less than 0.3 NTU	Charles Town Water Treatment Plant	Soil Runoff

Radiological								
Contaminant	Violation (Y/N)	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Likely Source of Contamination
Gross Alpha,Excl. Radon and Uranium	N	3/8/2021	0.224	0.224	pCi/L	15	0	Erosion of natural deposits

Secondary Contaminants (Non-Health based Contaminants- No Federal Maximum Contaminant Level (MCL)					
Contaminant	Collection Date	Highest Value	Range (low/high)	Unit	SMCL
ALKALINITY, TOTAL	1/5/2022	138	51 - 138	MG/L	10000
CALCIUM	3/2/2022	87.2	34 - 87.2	MG/L	n/a
CALCIUM HARDNESS	1/5/2022	196	85 - 196	MG/L	n/a
CARBON, TOTAL	12/1/2022	9.5	0.8 - 9.5	ppm	10000
CHLORIDE	2/24/2020	3.5	3.5	MG/L	250
CONDUCTIVITY @ 25 C UMHOS/CM	7/6/2022	384	3.25 - 384	UMHO/CM	N/A
CRYPTOSPORIDIUM	6/6/2018	1	0 - 1	N/A	N/A
GIARDIA LAMBLIA	8/8/2018	1	0 - 1	N/A	1
HARDNESS, CALCIUM MAGNESIUM	12/29/2021	187	1.1 - 187	MG/L	n/a
HARDNESS, TOTAL (AS CACO3)	1/15/2020	346	75 - 346	MG/L	n/a
ORTHOPHOSPHATE	3/16/2022	3.22	1.2 - 3.22	MG/L	n/a
PH	1/19/2022	7.8	7 - 7.8	SU	8.5
PHOSPHATE, TOTAL	1/18/2018	1.78	1.45 - 1.78	MG/L	n/a
SILICA	3/31/2021	2.045	0.213 - 2.045	MG/L	n/a
SODIUM	4/5/2022	10.4	10.4	MG/L	1000
SULFATE	4/5/2022	15.3	15.3	MG/L	250
TEMPERATURE (CENTIGRADE)	8/31/2022	27.8	3.3 - 27.8	C	n/a

WATER QUALITY RESULT SUMMARY

During the 2022 calendar year, CTUB had the below noted violation of drinking water regulations.

Analyte: Volatile Organic Compounds
Compliance Period: 1/1/2020 to 12/31/2022
Violation Comments: Lab results were submitted within the compliance period for volatile organics; however, the samples that were submitted on April 5, 2022 were rejected. The sample was analyzed and in compliance but rejected due to contracted laboratory error.

CTUB will work to correct this sample submission error in the future and will continue to strive to provide excellent water quality to our customers and strive to meet or exceed the standards set by the EPA and State of West Virginia.

Should you have any questions regarding this report or your drinking water quality please do not hesitate to contact us at info@ctubwv.com or (304) 725-2316.

CHARLES TOWN UTL-CAVALAND SUBDIVISION

WV3301972

Consumer Confidence Report – 2023

Covering Calendar Year – 2022

This brochure is a snapshot of the quality of the water that we provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. If you would like to observe the decision-making process that affects drinking water quality or if you have any questions, comments or suggestions, please attend any regularly scheduled water board meeting held on the 2nd and 4th Wednesday of each month at 4:00 p.m. in the Charles Town Utility Board Office, at 661 South George Street, Charles Town, WV 25414 or call KRISTEN M. STOLIPHER at 304-725-2316.

Your water comes from :

Source Name	Source Water Type
WELL 1	Ground Water

Buyer Name	Seller Name
There are no additional purchases to display.	

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) included rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in sources water before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity.

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulation which limits the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our water system has an estimated population of 107 and is required to test a minimum of 1 sample per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

Water Quality Data

The following tables list all of the drinking water contaminants which were detected during the 2022 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1- December 31, 2022. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Terms & Abbreviations

Maximum Contaminant Level Goal (MCLG): the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): the "Maximum Allowed" MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Secondary Maximum Contaminant Level (SMCL): recommended level for a contaminant that is not regulated and has no MCL.

Action Level (AL): the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

Treatment Technique (TT): a required process intended to reduce levels of a contaminant in drinking water.

Maximum Residual Disinfectant Level (MRDL): the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Non-Detects (ND): lab analysis indicates that the contaminant is not present.

Parts per Million (ppm) or milligrams per liter (mg/l)

Parts per Billion (ppb) or micrograms per liter (µg/l)

Picocuries per Liter (pCi/L): a measure of the radioactivity in water.

Millirems per Year (mrem/yr): measure of radiation absorbed by the body.

Monitoring Period Average (MPA): An average of sample results obtained during a defined time frame, common examples of monitoring periods are monthly, quarterly and yearly.

Nephelometric Turbidity Unit (NTU): a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for groundwater systems.

Running Annual Average (RAA): an average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.

Locational Running Annual Average (LRAA): Average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Testing Results for: CHARLES TOWN UTL-CAVALAND SUBDIVISION

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2022				

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	4/4/2022	0.134	0.134	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CHROMIUM	4/4/2022	2.2	2.2	ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
FLUORIDE	4/4/2022	0.33	0.33	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	8/8/2022	7.8	6 - 7.8	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	10/26/2021	8.7	8.7	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRITE	4/4/2022	0.27	0.27	ppm	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCLG	Typical Source

No Detected Results were Found in the Calendar Year of 2022

Lead and Copper	Monitoring Period	90th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2020 - 2022	0.124	0.0457 - 0.129	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2020 - 2022	2.2	0.18 - 2.3	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The Charles Town Utility Board (CTUB) is working is working towards identifying service line materials throughout the water distribution supply. The service line inventory is required to be submitted to the state by October 16, 2024. If you have any questions about our inventory, please contact KRISTEN M. STOLIPHER at (304) 725-2316.

Chlorine/Chloramines Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
2022 – 2022	2.5000	MG/L	1.4	MG/L

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	6/10/2019	1.75	1.75	pCi/L	15	0	Erosion of natural deposits

Secondary Contaminants-Non Health Based Contaminants-No Federal Maximum Contaminant Level (MCL) Established.	Collection Date	Highest Value	Range (low/high)	Unit	SMCL
SODIUM	4/4/2022	2.07	2.07	MG/L	1000
SULFATE	4/4/2022	19.8	19.8	MG/L	250

CTUB is pleased to report that there were no violations of water quality regulations during the period between January 1 and December 31, 2022.

Your CCR is available at www.ctubwv.com.

This report is hand-delivered to the residents within the Cavaland Subdivision. Should you require an additional paper copy in the mail, please contact us at (304) 725-2316.

CHARLES TOWN UTL-GLEN HAVEN UTILITIES

WV3301909

Consumer Confidence Report – 2023

Covering Calendar Year – 2022

This brochure is a snapshot of the quality of the water that we provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. If you would like to observe the decision-making process that affects drinking water quality or if you have any questions, comments or suggestions, please attend any regularly scheduled water board meeting held on the 2nd and 4th Wednesday of each month at 4:00 p.m. in the Charles Town Utility Board Office, at 661 South George Street, Charles Town, WV 25414 or call KRISTEN M. STOLIPHER at 304-725-2316.

Your water comes from:

Source Name	Source Water Type
WELL #1	Ground Water

Buyer Name	Seller Name
There are no additional purchases to display.	

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) included rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in sources water before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity.

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulation which limits the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our water system has an estimated population of 195 and is required to test a minimum of 1 sample per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

Water Quality Data

The following tables list all of the drinking water contaminants which were detected during the 2022 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1- December 31, 2022. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Terms & Abbreviations

Maximum Contaminant Level Goal (MCLG): the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): the "Maximum Allowed" MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Secondary Maximum Contaminant Level (SMCL): recommended level for a contaminant that is not regulated and has no MCL.

Action Level (AL): the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

Treatment Technique (TT): a required process intended to reduce levels of a contaminant in drinking water.

Maximum Residual Disinfectant Level (MRDL): the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Non-Detects (ND): lab analysis indicates that the contaminant is not present.

Parts per Million (ppm) or milligrams per liter (mg/l)

Parts per Billion (ppb) or micrograms per liter (µg/l)

Picocuries per Liter (pCi/L): a measure of the radioactivity in water.

Millirems per Year (mrem/yr): measure of radiation absorbed by the body.

Monitoring Period Average (MPA): An average of sample results obtained during a defined time frame, common examples of monitoring periods are monthly, quarterly and yearly.

Nephelometric Turbidity Unit (NTU): a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for groundwater systems.

Running Annual Average (RAA): an average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.

Locational Running Annual Average (LRAA): Average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Testing Results for: CHARLES TOWN UTL-GLEN HAVEN UTILITIES

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2022				

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	6/10/2019	0.0578	0.0578	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CADMIUM	6/10/2019	0.7	0.7	ppb	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
FLUORIDE	6/10/2019	0.11	0.11	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	4/4/2022	0.27	0.27	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	12/16/2019	0.66	0.66	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRITE	12/16/2019	0.4	0.4	ppm	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Byproducts	Sample	Monitorin	Highest	Range (low/high)	Unit	MC	MCL	Typical Source

	Point	g Period	LRAA			L	G	
TTHM	925 MASON DRIVE (GLEN HAVEN PUMP HOUSE)	2022	2	2 - 2	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2020 - 2022	0.164	0.0321 - 0.206	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2020 - 2022	4.6	0.83 - 5.3	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

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Chlorine/Chloramines Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
2022 - 2022	1.9000	MG/L	1.6	MG/L

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2022							

Secondary Contaminants-Non Health Based Contaminants-No Federal Maximum Contaminant Level (MCL) Established.	Collection Date	Highest Value	Range (low/high)	Unit	SMCL
SODIUM	6/10/2019	12.8	12.8	MG/L	1000
SULFATE	6/10/2019	50.6	50.6	MG/L	250

During the 2022 calendar year, we had the below noted violation(s) of drinking water regulations.

Analyte: Volatile Organic Compounds
Compliance Period: 1/1/2020 to 12/31/2022
Violation Comments: Violation is noted for missing required Volatile Organizc Compounds (VOC's) sample analyses results between 1/1/2020 and 12/31/2022. CTUB immediately sampled for these analytes upon notification that they were missing. The results from sampling are well within the requirements specified by the Environmental Protection Agency and the West Virginia Bureau of Public Health.

Analyte: Inorganic Compounds
Compliance Period: 1/1/2020 to 12/31/2022
Violation Comments: Violation is noted for missing required Inorganic Compounds (IOC's) sample analyses results between 1/1/2020 and 12/31/2022. CTUB immediately sampled for these analytes upon notification that they were missing. The results from sampling are well within the requirements specified by the Environmental Protection Agency and the West Virginia Bureau of Public Health.

Analyte: Arsenic
Compliance Period: 1/1/2020 to 12/31/2022
Violation Comments: Violation is noted for missing required Arsenic (ARS's) sample analyses results between 1/1/2020 and 12/31/2022. CTUB immediately sampled for these analytes upon notification that they were missing. The results from sampling are well within the requirements specified by the Environmental Protection Agency and the West Virginia Bureau of Public Health.

CTUB will work to correct this sample submission error in the future and will continue to strive to provide excellent water quality to our customers and strive to meet or exceed the standards set by the EPA and State of West Virginia.

Should you have any questions regarding this report or your drinking water quality please do not hesitate to contact us at info@ctubwv.com or (304) 725-2316.

Your CCR is available at www.ctubwv.com.

This report is hand-delivered to the residents within the Glen Haven Subdivision. Should you require an additional paper copy in the mail, please contact us at (304) 725-2316.